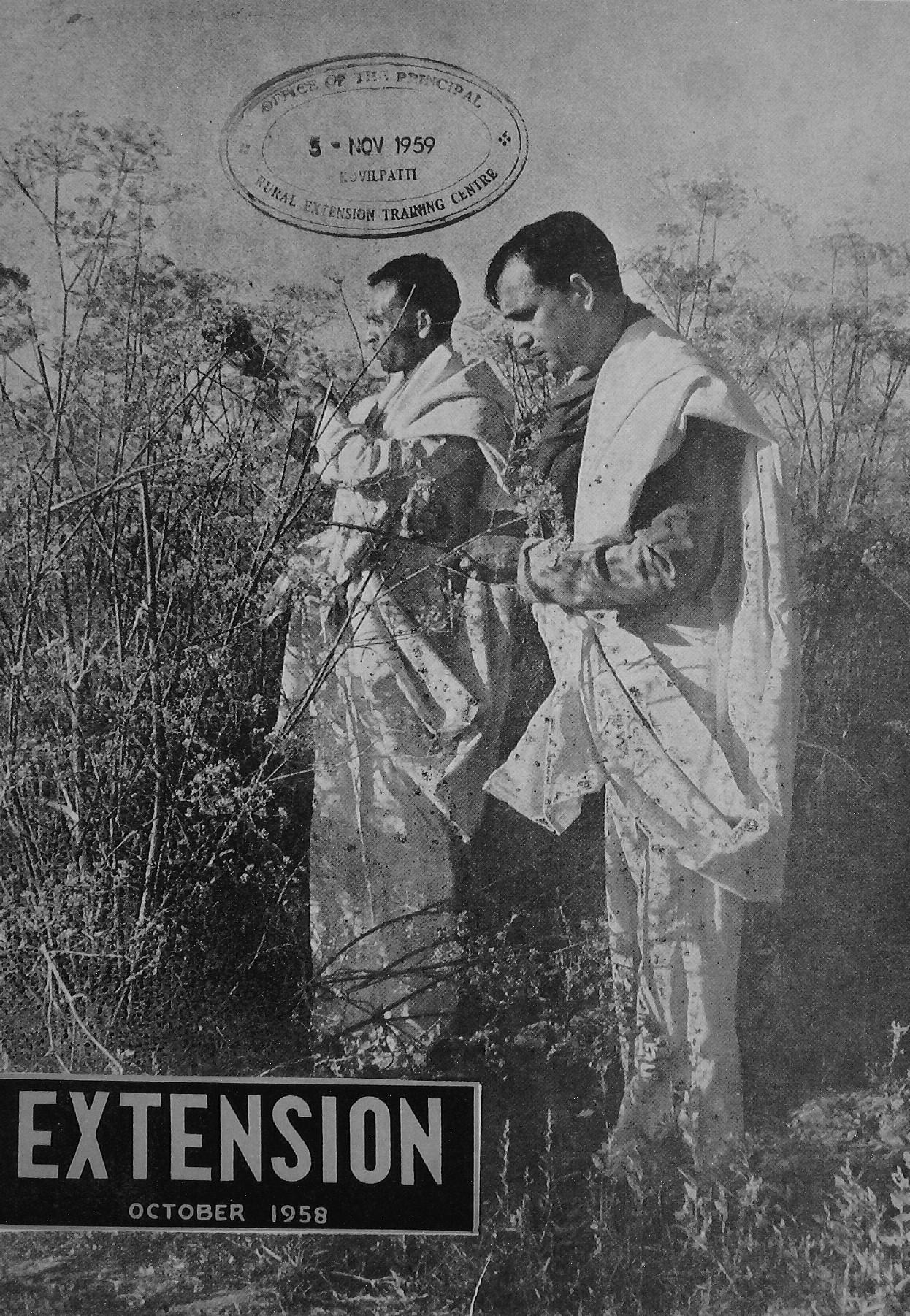

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CONTENTS

	Page
EDITORIAL	2
SPECIAL ARTICLES	
Extension and Rural Sociology ... ... *by R. S. Randhawa*	5
F.A.O. Extension Study Tour	19
Village Apprenticeship Programme ... *by S. R. Chopde*	30
I. A. R. I's Intensive Cultivation Scheme ... *by P. C. Raheja and A. R. Khan*	33
Practical Extension Tips ... ... *by P. K. Anandani*	40
MARCHING AHEAD	
Chirgaon Training-cum-Extension Project ...	47
Anand Extension Training Centre ...	50
Sathivizianagaram Rural E. T. C. ...	52
Meenakshi Weeder	54
WOMEN'S CORNER	
Gram Sevikas' Seminar at Mandya ...	57

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EDITORIAL

The Agricultural Extension Study Tour for Asia and Far East fulfilled its objective in more than one aspect. The major objective of the tour was to provide the senior officers from among the Extension administrators with an opportunity of an intensive study of the Extension organizations in three countries in the Eastern Region. A special reference was made with regard to the following :—

1. Extension activities at the field level.
2. The mechanics of programme planning.
3. Training programme and facilities for the Extension workers.
4. Preparation of the teaching material.
5. Community Development activities.
6. How far the idea of Extension was a two-way channel whereby the results of research were made available to the Extension workers; how far the problems of farmers were brought to the research workers and how far they were being realised.
7. The problems of supplies and equipments in the Far Eastern countries.

The team had the opportunity of making an intensive study of these aspects

in Japan, the Philippines and India. In addition, the participants established contacts with the Extension workers and administrators in various countries. This is expected to go a long way in an understanding of the over-all problems of the under-developed regions in the Eastern Hemisphere. It was very proper for the F.A.O. to have taken lead in this matter. Dr. D.C. Kamel, who was entrusted with the implementation of the scheme, deserves congratulations on the success.

While campaigns for increasing production are being intensified throughout the country, the Nalagarh Committee, presided over by the Raja of Nalagarh, has just published its report on Agricultural Administration. This report has already been highly commended by the Press. The terms of reference of the Committee were as follows :—

(i) to suggest simplifications in the administrative and financial procedures, in order to expedite the implementation of the agricultural production schemes ;

(ii) to suggest a model agricultural organization in the States, along with suggestions for the delegation of suitable powers at various levels in the States, so that the agricultural production schemes may be carried out speedily.

Throughout its tour of the States, the Committee was struck by the prevailing "low morale" among the agricultural services and "frustration arising from the belief that agriculture hardly ever received the attention it deserved, and is still being treated as a 'minor' department only to be remembered in times of a national emergency of food shortage arising partly from the ever-increasing population and partly from the failure of the monsoons, or uncharitable weather conditions".

The Committee observed that little attention had been paid to the building up of stable departments of agriculture manned with an adequate competence and requisite sense of urgency and singleness of purpose. Agriculture, according to the Committee, has never received its due share of attention in this country.

To emphasize the importance of agriculture, the report states, "at the head of all sciences and arts, at the head of civilization and progress, stands not militarism — the science that kills : and not commerce—the art that accumulates; but agriculture — the mother of all industries and the maintainer of human life."

A good Extension service backed by competent and stable departments of agriculture manned by enthusiastic and dedicated workers will go a long way in achieving self-sufficiency in food and, therefore, it is all the more important that serious thought is given, by the Central and State Governments, to the observations and recommendations of the Agricultural Administration Committee, to raise agriculture to a position of major importance in India.

The Committee appears to have gone to the root cause and have made valuable suggestions for the strengthening of the agricultural departments and the agricultural services. They have studied the growth of the agricultural departments in the country and have observed not only a paucity of competent officers, but also "dead-wood" in the departments of agriculture; a large number of temporary posts; low scales of pay ; slow promotions ; lack of opportunities for promotions and leadership.

In the State departments of agriculture, a very large proportion of the posts—30p.c. to 80p.c.—is of a temporary nature; promotions are few and far between and are given largely on the basis of seniority, and seldom on the basis of merit. Cases are not lacking of the promising research workers having to hang on, from ten to 20 years on posts entirely temporary with hardly any prospects of old-age pension and other benefits. Absence or a near absence of the selection-grades and various other handicaps have lowered the stature of the agricultural services in the country. Many who are competent have to struggle against a cumbersome and outmoded administrative machinery which not only makes it futile to strive to be competent, but even encourages and promotes mediocity, bestows on them responsibility without authority over the budgets or individuals placed under them; wastes precious weeks and months in perfecting procedural niceties; relegates the field worker and the scientific worker to the domain of papers, files and accounts and denies him technical leadership and recognition in his special field."

In another paragraph, discussing the paucity of competent officers, the Committee states, "today, there are only a handful of senior competent officers available in the departments of agriculture, and the gap between them and those who can take over after them, is a disconcertingly wide one. The country suffers from an acute shortage of experienced agricultural officers who posses vision, initiative and drive. Technological competence and administrative efficiency are not at the level to be expected, and the morale of the departments of agriculture is generally low."

Many ably produced reports have not received their due attention in the past. It is only hoped that the report of this Committee, which took pains to go deep into the root cause of the malady, will receive adequate attention, and the implementation of all its recommendations would be ensured thoroughly. The agricultural departments and the agricultural officers will in any case feel gratified to the chairman and members of the Committee for the careful study they have made on the problems, and for the useful suggestions they have made for the solution of these problems.

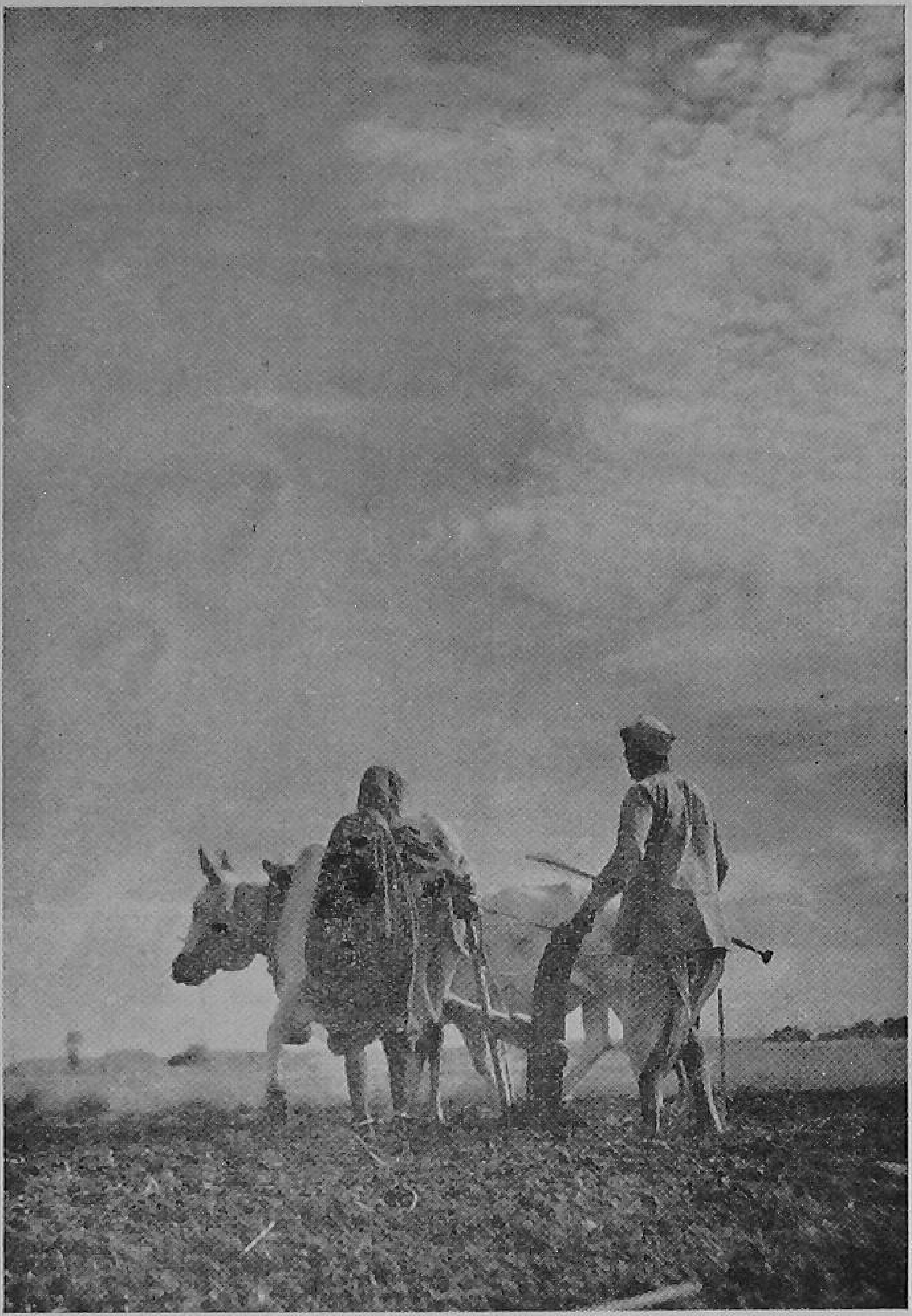
OUR COVER

Gram Sevak Trainees of the Anand Extension Training Centre harvesting aniseed by the traditional method.

Photo by Gurcharan Singh

EXTENSION AND RURAL SOCIOLOGY

— R. S. RANDHAWA



The average Indian farmer with his small holdings is afraid of undertaking the risk of practising new methods of cultivation and continues using his age-old implements

Community development is a concept of rural reconstruction consisting of the processes by which people's efforts are coordinated with those of the governmental agencies to improve the economic, social and cultural conditions of rural communities; to integrate them into the national life, and to enable them to contribute fully to the national progress. Emphasis is placed first on self-help and secondly on a co-ordinated instead of a fragmentary approach. It is thus a co-operative partnership between the people and the government for bringing about an all-round development of our village people.

DEVELOPMENT THROUGH EXTENSION

Development implies change in desired directions, for without change there can be no development. In a co-operative partnership this change has to be voluntary, for there can be no co-operation without voluntary acceptance. This voluntary acceptance of change is to be brought about through an understanding of some principles of rural sociology and the basic philosophy of extension and the use of extension methods. The staff entrusted with the administration and

technical and supervisory direction of the programme should, therefore, be well conversant with the extension approach and techniques.

Extension is a science and also a method of education which relates useful, practical knowledge to the needs of the farmer and his family as well as others who live and work in the villages. It does so by developing a co-operative spirit of 'give and take'. Through this, village people can receive new knowledge and in turn contribute to it their practical wisdom and experience. Extension is thus a continuous educational process to which both the extension workers and the villagers contribute.

PROPER UNDERSTANDING OF VILLAGERS

A proper assessment of the villager is very essential for an extension worker. What kind of being is the villager? What shaped him? How did he get to be what he is? We know that he is the product of a group and its culture, in many ways outmoded. He is still suffering from the hangover of the British rule, which was a period of neglect of rural areas. The villager was left in ignorance, superstition, poverty, disease and unhygienic surroundings. Even the most elementary amenities, like clean drinking water, neat surrounding without filth and swarms of flies and mosquitoes, were not provided to the villager. Even if he wanted to improve his surroundings and raise his economic and social standards, he was not given any assistance or aid worth the name. With his very small holdings he lived so close to the survival margin that he could easily afford to take risks, and experiment with new techniques. Their was no adequate arrangement for primary education for his children, and craft instruction for his girls. He never went fifty miles from where he was born, all his life. His economic region lay within that radius. He knew the face and name of everyone in the village, and many in the region. In this background, the extension worker should study him, his attachments and loyalties and preferences and prejudices. His group, meanwhile, has now grown so large that it covers a substantial part of his State. We can also distinguish a number of sub-groups to which he belongs. The villager identifies himself loyally with his *Ilaqa* and district and also with his State and country, but in a declining scale.

FIRST LOYALTY TO HIS VILLAGE

His major loyalty should be to the country but it will take some time to develop this feeling in him. His "We" group, in the most binding sense of the term, is at present his sub-group. His village comes first, then the surrounding tract, the district and the State. India with its many States is a pretty vague concept to him. The concrete highways, even more than rail-road and electricity and the radio listening centres will, as their network spreads over the rural areas, break the old local patterns and folk-ways.

VILLAGER AND THE LAW OF IMITATION

The villager talks much about individualism. He may think he is on his own, responsible only to himself, his family and to his God, but it is not so. Many things he might like to do, but he cannot do, because the folk-way forbids it. His freedom is strictly relative. He does what others of his group do. He goes where others go. He wears what others wear. He follows the law of imitation. Imitation meant tribal unity, but it also stood in the way of the improvement of the community.

Superstitions may have declined somewhat, but a villager still avoids undertaking a journey on certain days considered inauspicious. He does not like any body sneezing when he starts on some important work. Where did these codes and beliefs come from? He was initiated to them from the moment he was born. His parents, playmates, relatives, village headmen,

religious teachers, nearly everyone who corssed his path during his impressionable years conveyed these codes and beliefs to him. Codes and beliefs always come from the people one comes from.

VILLAGER — A PRODUCT OF OLD CIVILIZATION

The villager is a product of an age-old and, in many respects, an outmoded civilization. For thousands of years the group from which he descends has practised a widespread division of labour and certain methods of agriculture and animal husbandry. To him personally it means, among other things, joint family life, living in a house, keeping cattle, cooking in ghee, going to the village temple, taking part in ceremonies and festivals, paying taxes, making use of money, eating cereals, *dahi*, *gur*, *sarson ka sag*, drinking milk, *lassi* and sugarcane juice. He spends lavishly on ceremonial occasions.

Fate, face and favour play an inordinate part in his scheme of things. Wherever he goes he carries this great cultural load like the proverbial old man of the sea. No body can get at him, talk to him, tell him anything except in relation to this burden, his heritage. When he meets the Chinese, the Burmese, or the Europeans during his service overseas, he judges them by these standards. If he is taken on a study tour of the different parts of India, he will judge the inhabitants of those parts in a similar way. Unless he is aware of his reaction, it is unlikely that he will judge them objectively and fairly. Because the culture-rings of the people from different parts are different; many things they do vary from what he does in similar circumstances, he will find fault with them for it. His old culture will stand in his way of readily understanding different parctices and behaviours, of accepting new ideas and new techniques. Same will be the reaction of a person, brought up in a city, and on a visit to villages. The first time a man visits a foreign country he is apt to ridicule every habit that is different from his. He grumbles the foreign food and way of eating. Later, as he gains more experience of the foreigners and their ways, he grows wiser. He learns that there is nothing inherently wrong in these habits. They are so merely due to local conditions.

CULTURAL CONCEPT

The extension worker should remember that there are differences in belief, sentiment, habit and custom among the various communities and the people inhabiting our country. But at the same time there are universal basic characteristics inherent among our people. They all face the same life tasks, share the same anxieties and perplexities, bereavements and tragedies, go to the same places of pilgrimage, observe the same seasonal festivals, seek the same goals to make life meaningful and significant and to find some security. These two linked principles summarize the culture-concept. The more naive of the people-minded administrators accept the second, but they are not sufficiently aware of the first. The stereo-type-minded stress the first and forget the second.

One thing that human beings always do is to form themselves into groups, tribes, societies, and to evolve customs folk-ways, systems of belief, for holding the group together and giving it a structure. A society refers to the group of people who have learnt to work and exist together. Every society practises a system of division of labour. Unfortunately this division of labour crystalized itself into the caste-system in India, under which the low-caste members were doomed to a more or less wretched form of life. However intelligent a member of the lowest caste might have been, there was no opportunity for him to acquire education and improve his position in the social rung.

A culture refers to the way of life which the group follows. Culture is the cement which binds the members of the group into a living organism. A people's

culture is the sum of all the patterns of behaviour and practice impressed from the cradle onwards, which keeps the group together as a living organism, and helps it to adapt to nature and the conditions of life and to survive in its environment.

Among men, the group rather than the individual has become the primary unit in the struggle for existence. The culture-concept shifts the emphasis away from the individual, and centres it upon his group. For centuries, philosophers, preachers, educators and businessmen in the West have laid stress on the individual. They have affirmed that he alone was responsible for his sins, his sufferings, his triumphs, and his defeats.

The anthroplogists and sociologists have found that the individual is not that kind of organism, and cannot be understood with that concept and in isolation. He is a product of his culture. He is a living part of his group and can be understood and appraised only in relation thereto.

A comprehension of the double role of the individual as an individual, and, as a unit in society, observes Linton, will provide a key to many of the problems of human behaviour.

The culture-concept pinpoints the attention of the extension worker on evolving measures for economic and social reform, keeping in mind that every society is bound by the gigantic toils of the age-old cultural patterns. Many social reformers overlook the facts of culture. They think they can somehow wipe the slate clean and start afresh. This is impossible. Every human being is born in a world shaped by the already existing cultural patterns. No reform can ever bear fruit unless it is grafted successfully on the living tree of culture.

SURVIVAL THROUGH REPRODUCTION AND NOURISHMENT

A group's main task is survival through reproduction and nourishment. The group instinct dictates that the young can be protected and food supply secured, only by following the long established practices. The age-old ways — the long tried ways — of doing things have guaranteed minimum production of food supply to sustain the group and its children. A change suggested in the technique of doing things generates a fear in the mind of the members of the group that even the low yield of production obtained by them through practising old-fashioned techniques may not be possible, and their families might starve. The leaders of the group, the elders, are therefore prone to be suspicious of any new idea or technique. The first instinctive reaction is against it as it arouses a feeling of insecurity. The idea that a group can suddenly be emancipated from its past habits is no more sensible than the idea that a man, who flaps his arms rapidly enough, can fly.

FORMATIVE YEARS

The saying: if the church has a boy when he is six, the boy will be a good communicant for life — has strong support from social scientists. It has been found that a healthy infant born of a people howsoever backward, can adjust to any culture howsoever advanced. This emphasizes the great importance of the formative years. The age-old culture and its ways have not found time to lay its impress on the child. It is like an empty bottle, ready to receive anything. A cultural change could be introduced in the younger members of a group — as through a funnel — through the mothers and teachers who are moulders of the next generation, and particularly the mother with whom the child has more intimacy and is bound by the silken ties of love and affection. If people were bad by virtue of their blood, or race, there would not be much we could do for them. But people are basically all right, and the problem lies primarily in an adjustment of cultural patterns or to new cultural patterns, and a great deal can be done if the extension worker does his job after a full grasp of the problem, evolving the necessary steps, planning and phas-

ing their application. For all this, sympathy for the villagers and an understanding of their life and handicaps is necessary.

IT TAKES TIME TO CHANGE CULTURE PATTERNS

Theoretically, a society could be completely changed in about twenty-five years' time; the time it takes to inculcate a new culture into the growing generation. But such a theory assumes that parents, teachers, preachers, newspaper and article writers, all have re-educated themselves, ready for the inculcating task, which is obviously not so. But it is heartening to know that the trouble does not all come from the inherent human nature. It comes mostly from the marks made by the age-old cultural patterns in the plasitc human nervous system. Culture patterns do change, and can be changed, but it takes time and needs a systematic plan of action.

SMALL FARMERS DO NOT TAKE RISKS

Our farmers, with very small holdings, live so close to the survival margin that they cannot easily afford to take risks and experiment with new techniques and ideas. In actual practice we find that it is generally the well-to-do farmer, with a large or medium-sized holding, who gives a lead in the matter and takes risks and experiments with the new techniques. This is because he can afford to try these experiments in a portion of his holding. The experiments based on new techniques have to be repeated a number of times, as the farmer wants to observe them for three years or so before he accepts them for trial. We cannot blame him. The results of a new technique cannot be appraised in a short time like a year. The favourable results achieved in the first year might, as the farmer rightly suspects, be due to favourable climatic conditions. He has experience of a much more bountiful harvest when climatic conditons have been more favourable.

GROUP OPINION AND ITS GUARDIANS

Ordinarily no person would like to do anything different from the accepted ways of the group, otherwise the group opinion goes against him. There are, in every community, guardians of the folk-ways. These are generally the leaders of the group of families. Unless these group leaders accept the new idea, it will seldom be accepted by the members of the group. It is necessary for this reason that every extension worker should, while carrying out the survey of the villages, find out who are the leaders of the groups of families in each village, develop intimate contacts with them and maintain sound working relationship with them. It is only when the group leader is inclined to try the new way that the families in the group, or some of them, would do so. These group leaders are the conscience keepers of the members of the group. It is, therefore, essential for an extension worker to be in touch with the group leaders constantly and study

Merely demonstrating an improved method once is of no avail. The method has to be demonstrated again and again, till cultivators have fully grasped the new technique

their reactions to our new techniques. No extension worker can succeed in extension work without the support and sympathy of these group leaders. They, therefore, should be actively associated in the community development work.

also remember that giving instructions and demonstrating only once will not suffice. He would have to repeat them till the new technique is properly grasped and followed.

EXTENSION IMPLIES CHANGING HABITS

Habit is formed by imitating others. The younger members of the group observe their elders do things in a certain way and they follow them. A certain way of doing a thing is repeated a number of times over a long period till it becomes a habit. When one does a thing in a certain way for the first time, it requires a lot of mental and physical effort. As one goes on repeating it, it becomes easier till finally it becomes part of oneself. When it is done automatically without any mental effort, it becomes a habit with the persons. When a new way of doing a thing is sought to be introduced, a mental and moral effort on the part of the person affected to shed the old habit is first required. It is quite an act of courage and faith when he decides to give up the old way. After having discarded the old way, again mental and physical effort is required to cultivate the new way of doing things and to practice it over and over again till it becomes automatic.

It is for this reason that people who are not very energetic and adventurous stick to their old habits or the old way of doing things because it is the easy way involving little effort on their part. It is thus clear that changing habits of the people is not so easy, and takes time. The old-fashioned habit took quite a number of years to cultivate. To change it for a new way of doing a thing will also take considerable time. The extension worker should be understanding, sympathetic and patient while introducing a new way of doing a thing. He should be very careful to give instructions regarding the new technique followed by a demonstration. He should

YOUNG FARMERS' CLUBS

It is also for this very reason that we propose to approach villagers when they have not formed their fashioned habits, that is to say, we take hold of the young while they are in the formative stage. It is easy to teach them the new ways, because they do not have to make an effort to unlearn things. A young person is like an empty bottle wherein we can pour things we like. A grown-up person, on the other hand, is like a full bottle which has to be emptied first to make room for a new substance. That is why we insist on the organization of young farmers' clubs and adult education-cum-craft centres for young girls between the age groups of 12 and 18. The young learn new things easily, and they also influence their parents who observe new things being parctised constantly before their eyes. The extension workers meet the parents not very frequently and so they cannot influence them to the same extent as their children who have adopted new tachniqu s, and constantly practise them before the eyes of the elders. Through the young farmers' clubs the extension worker can influence the parents of the members to follow the new techniques.

The girls in the craft centres will influence their parents and also the younger members of the family regarding cleanliness in the house, doing things methodcally, serving food neatly, cooking the food in a better way, dressing neatly, combing their hair, washing their faces soon after getting up in the morning, behaving in a courteous and polite manner and developing a national outlook as against a communal or sectarian outlook.

BALWADIS

The training of children in Balwadis is important in extension work. In Balwadis children from different families play together and cultivate a co-operative outlook. National and patriotic songs are taught to them. They play in clean surroundings instead of dust and dirt. This gives a neat and clean appearance. The mothers get into the habit of dressing the hair and washing the faces of their children. Once they get into this habit, they will also wash the faces, and comb the hair of other children who do not attend the Balwadi. The instructress incharge of the Balwadi washes the faces of children, and combs their hair during the first week. When the child finds it interesting to attend the Balwadi, this work of personal cleanliness is required to be done at home by the parents. The child who comes to Balwadi without combing his hair and without washing is sent back and, therefore, he insists on the mother to comb his hair and wash his face, so that he can come back to the Balwadi and join other children in the play and other recreational programmes. In this way the child forces the mother into the new habit of combing his hair, washing his face and dressing him clean. If she does this for a few months, she acquires the habit. This is a more effective way than approaching the mothers occasionally and exhorting them to keep their children clean.

This also gives the extension worker a lesson that invariably it is the indirect method which is more effective than the direct method. In this case the direct method would have been for the Lady Social Education Organizer and the *Gram Sevika* to give demonstrations and lectures to the mothers exhorting them to keep their children clean and comb their hair etc. But it has been seen in practice that this direct method is not so effective as is the indirect method of starting a Balwadi. The direct method cannot be repeated often and there is no constant reminder to the mothers. Making the child interested in the games and other recreational programmes of the Balwadi in such a way that the Balwadi becomes a centre of attraction for him, is the first step in this direction. The child will then insist on the mother to wash his face, comb his hair and dress him properly, so that he can attend the Balwadi to satisfy his interests. This gives the extension worker another lesson that is that in order to introduce a new thing under our programme in the villages, we should combine it with something which is of great interest to the participants.

ADULT EDUCATION-CUM-CRAFT CENTRES

This method is used in the craft centres where adult education has been combined with crafts which are of great interest to the village young women. The crafts, particularly sewing clothes with a sewing machine, are motivations which pull women regularly to the adult education-cum-craft centre. They are also interested in modern embroidery, soap making and the preparation of simple sweets, pickles and *murabbas* etc. Adult education and social education are the two most important items, which an extension worker wants to give to the villagers. But the villagers are not generally interested in these activities. For them, literacy is a dull affair. It is only when one can read fairly well that the interest aspect starts. It is for this reason that adult education centres for women did not prove popular with the village women in the initial stages as they were not combined with crafts. The adult education centres for men have not been successful also because we have not been able to combine some activity of great interest with such centres. This gives another important lesson which should be remembered by an extension worker. He should study the interests of the people among whom he is to work and the things they would be most interested in and would be prepared to take up first. The extension worker should devise ways of combining the things he wants to teach to the villagers with the urgent interests of the people i. e. the needs in which they are most interested.

Every extension worker should know the traditional methods of doing things, because without knowing them he cannot suggest improvements

ASSOCIATION OF PARENTS WITH CHILDREN'S ACTIVITIES

Another point which the extension workers should know is that in a village everybody wants to do things better than his neighbours. The neighbours may never have used a sewing machine and never have done modern embroidery. The girls, therefore, want to learn sewing with machine and also modern embroidery. Parents too like this because of the anticipated saving to the family. When drawing up a programme for the youngsters, the extension worker should consult the parents and also make them interested in it. The parents must also gain something out of it. Ultimately it is with the consent of the parents that the children join a certain activity. As the parents also pay the expenditure involved, on behalf of their children, it is not only necessary but proper that they are contacted before any extension work among the younger children is taken up. We should not try to side step the parents but, on the other hand, should explain to them the benefits accruing from a certain programme in such a way that it appeals to them, so that we may be able to get their co-operation. Some of the young farmers' clubs have failed, because parents of the members were not pre-educated or associated with them. It is for this reason that we insist that with an adult education-cum-craft centre for girls there should be a *Stri Sabha* composed of the mothers of the girls. The *Stri Sabha* should be kept informed about the nature and quality of the training given in a craft centre. For this purpose, the Lady Social Education Organizer may meet the members of the *Stri Sabha* every month and find out their reactions about the progress being made in the craft centre. Extension work among the children and young girls can succeed only if the parents are satisfied about the working of the Balwadi, young farmers' clubs and craft centres for girls. It is necessary that parents feel that they are also being associated. When they feel this way, they will themselves persuade their children to take regular and sustained interest in the development activities, and make full use of the facilities provided.

TRADITIONAL METHODS AND NEW METHODS

Every extension worker should know about the farmers' old-fashioned or traditional methods of doing things and the way the farmers think about these methods. In this background, it may be sometimes necessary to modify the new technique which may be introduced gradually and in two or three stages. The Block team should, therefore, be very careful in planning the introduction of a new technique.

As an illustration, let us take the making of compost. The old way was that the cattle dung and leavings of fodder were just dumped on the ground. There were no manure pits. Every village *abadi* was dotted with dunghills, an unseemly sight. This method of keeping farm yard manure was wasteful and unhygienic, as obviously the villager attached no importance to compost. It is necessary to understand why the farmer did not attach importance to the preservation of manure. It was so because in the plains of the Punjab, the traditional system of agriculture was mainly *barani*. Irrigation through the canals came during the British period and still later through the persian wheel, pumping sets and tube wells. In the *barani* agriculture, compost was not very necessary.

In contrast to this, even in the villages of the hilly regions, where no extension work has been done, we find that the villagers are very particular about the careful preservation of the farm yard manure. They even do not allow the cattle urine to go waste and they make a bed of leaves for absorbing it. This is then placed in layers and deposited along with the cattle dung. The farmers in the hilly regions gave importance to this because of abundant rainfall on account of which a good deal of farm yard maure was needed. In the plains, even though irrigation facilities have been made available, yet the traditional way of thinking about compost has persisted and it is really a hard job successfully to persuade the villagers to prepare compost properly. The importance of compost has not been yet realized by the average villager and he is not sure whether the benefits accruing from compost are commensurate with the extra daily effort he is required to put in for compost making.

Our approach in the matter of compost has not been in a correct perspective. We thought that men were mainly concerned with this and we therefore approached and educated them for the purpose. But in fact it is the wife or the daughter of the farmer, or the agricultural labourer who throws the dung and rubbish in the pit. It is, therefore, necessary that through our women workers we should educate the women folk about the value of compost and the correct method of filling the compost pit. Under the technique, suggested by the Agriculture Department, it is laid down that the daily filling of the pit should be covered with a layer of earth. An average villager will not be able to achieve this in practice except after some years. The traditional mode of agriculture did not require him to be regular and to do certain things daily. There were periods of regular hard work followed by the periods of slack or no work at all. Hence this method of daily and regular routine was not followed. In the initial stages, the farmers may not even throw the earth over the fillings once a week, not to speak of doing it daily.

In order to correlate compost making with the habit of the villager we have to modify the technique of filling the compost pit. We may start with a sectional filling of the pit. One-sixth of the compost pit should be partitioned off with a *khirka*. This will represent a portion that will get filled up in about ten days' time. This portion, after filling, should be covered with a layer of earth for protection. The *khirka* is then removed to partition the second portion. This process is repeated till the whole of the compost pit is filled up. This way of compost making will ultimately become part of routine with the farmer and, in other words, his habit. After he has got into this habit for a year or so, then we may start with the next step which is the proper and perfect way of making the compost.

DIGGING COMPOST PITS ON CAMPAIGN BASIS

Getting the compost pits dug according to specifications is not an easy task either. It has to be done in a few villages, at a time, on campaign basis. It is our experience that the villager does certain things simply to please the extension staff or other officers and to earn their appreciation. From our point of view compost pits are very important, but the villager attaches no importance

to them. He will dig them because he thinks that, by doing so, he will earn approbation from the Government. These instincts are to be utilized for the digging of compost pits. As stated earlier, the digging of compost pits should be taken up only in a few villages, at a time, on campaign basis. The campaign highlights the importance of the activity taken up and leads to total effort on the part of the Block staff and the people. When a village is taken up, the local *Gram Sevak* should be assisted by an officer from the Block headquarters, who may reach the village a day before the digging of pits is to start. In the evening he should hold a meeting of the villagers and explain to them the importance and necessity of digging compost pits. It should be pointed out to the villagers that compost pits will give the village a neat and tidy look and a much better appearance than the neighbouring villages which have no compost pits. The first impression of a visitor to the village, after compost pits have been dug, will be very favourable. From the health point of view also, compost pits will do a lot of good, as the incidence of disease will be much less than at present, with the flies and mosquitoes breeding on the dung heaps. Another advantage of compost pits is from the point of view of better manurial value.

The *Gram Sevak* should demonstrate the digging of one pit of necessary dimensions and this may be the *panchayat* compost pit which may be later filled out of the village sweepings and cattle dung by the local young farmers' club if there is one in the village. The officer concerned should stay on in the village till the digging of pits is completed. While the *Gram Sevak* with his intimate association with the villagers is almost taken for granted, the presence in the village of an officer from the Block headquarters is appreciated by the villagers and it makes them feel that the work of the digging of compost pits is important. The villagers are also encouraged when this officer makes occasional rounds to appreciate the work they are doing. If the officer from outside leaves in the midst of the work, half the work will be left undone.

When the work has been completed, some higher officer like the Sub Divisional Officer should go round these selected villages to say a word of cheer and appreciation for the good work done by the villagers. These visits of the officers will make the villagers think that they have done a very important and useful piece of work. In this way the importance of compost making will be highlighted. This is necessary in view of the traditional way of thinking which attaches no importance to this work. Thereafter the villagers will attach some importance to the next step of filling the compost pits with care.

An analysis of the problem of compost making has revealed that—

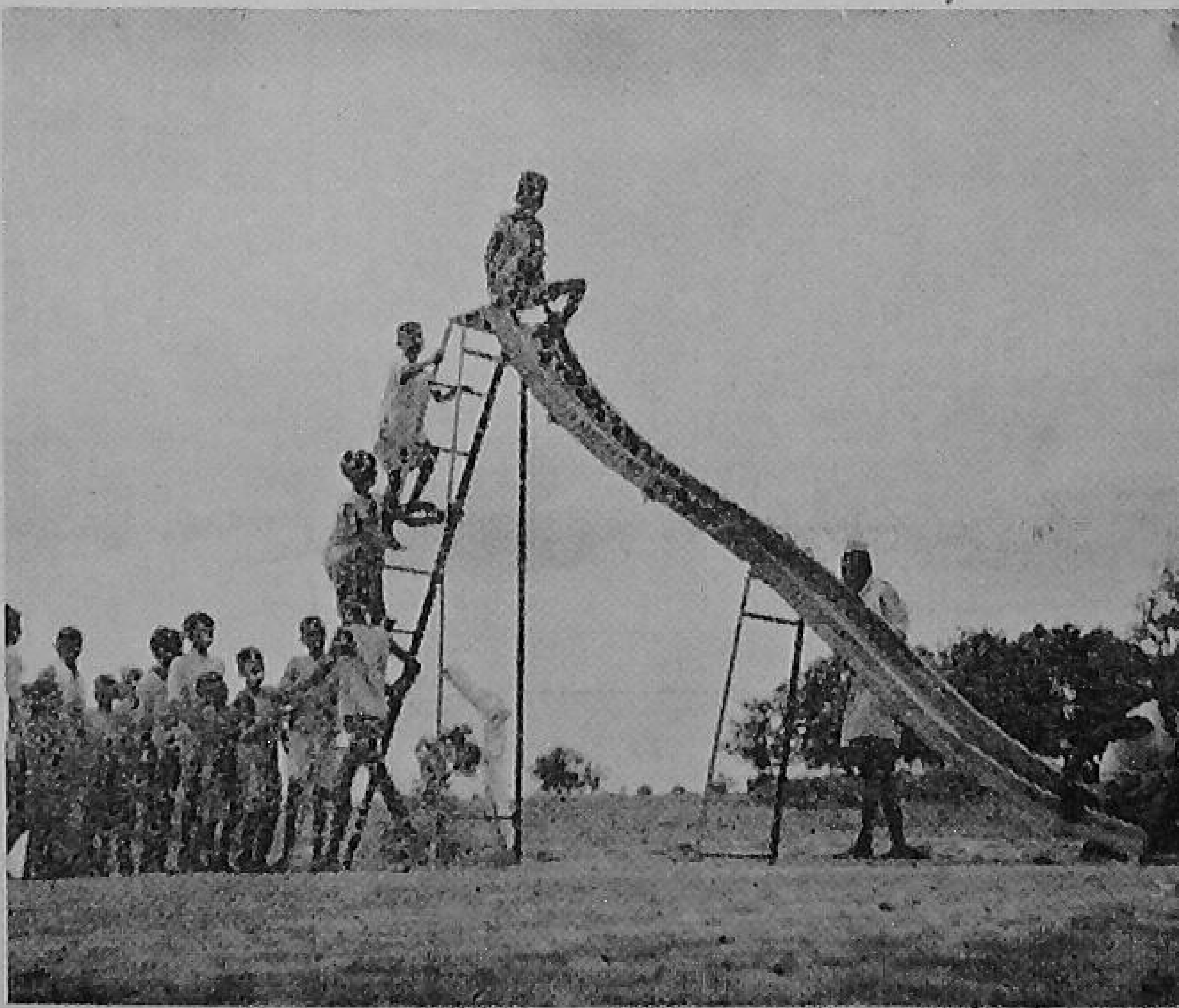
(1) No importance was being attached by the farmer to farm yard manure.

(2) Compost pits were never dug.

(3) The farmer was not used to doing things regularly or daily.

(4) The technique of compost making involved a serious departure from his accepted ways of doing things,

Work with the children is a sure way to villagers' hearts



habits and his daily routine and, therefore, in an ordinary course of things, no villager liked to take to this change.

(5) It was not enough merely to educate the farmers about the compost. It was necessary to contact the village women also, as it were they who threw the farm yard sweepings and cattle dung in the pits and so they were equally concerned.

(6) The technique of compost making as evolved by the Department of Agriculture was so different from the traditional or villagers' technique that it was advisable to introduce it in stages, on a planned basis, spread over a period of four to five years. Efforts to introduce this technique hurriedly and straightway did not bring the desired results.

On the above analogy, it is necessary that the Block Development Officer, Extension Officer, and *Gram Sevaks* should make an analysis of each problem before devising measures to tackle it. Part of this analysis would be in finding out the ways and wherefores of the traditional ways of the villagers.

TO BIND THE NEW WITH THE OLD

From the foregoing discussion, it would appear that instinctively also people do not like new ideas or the adoption of new habits.

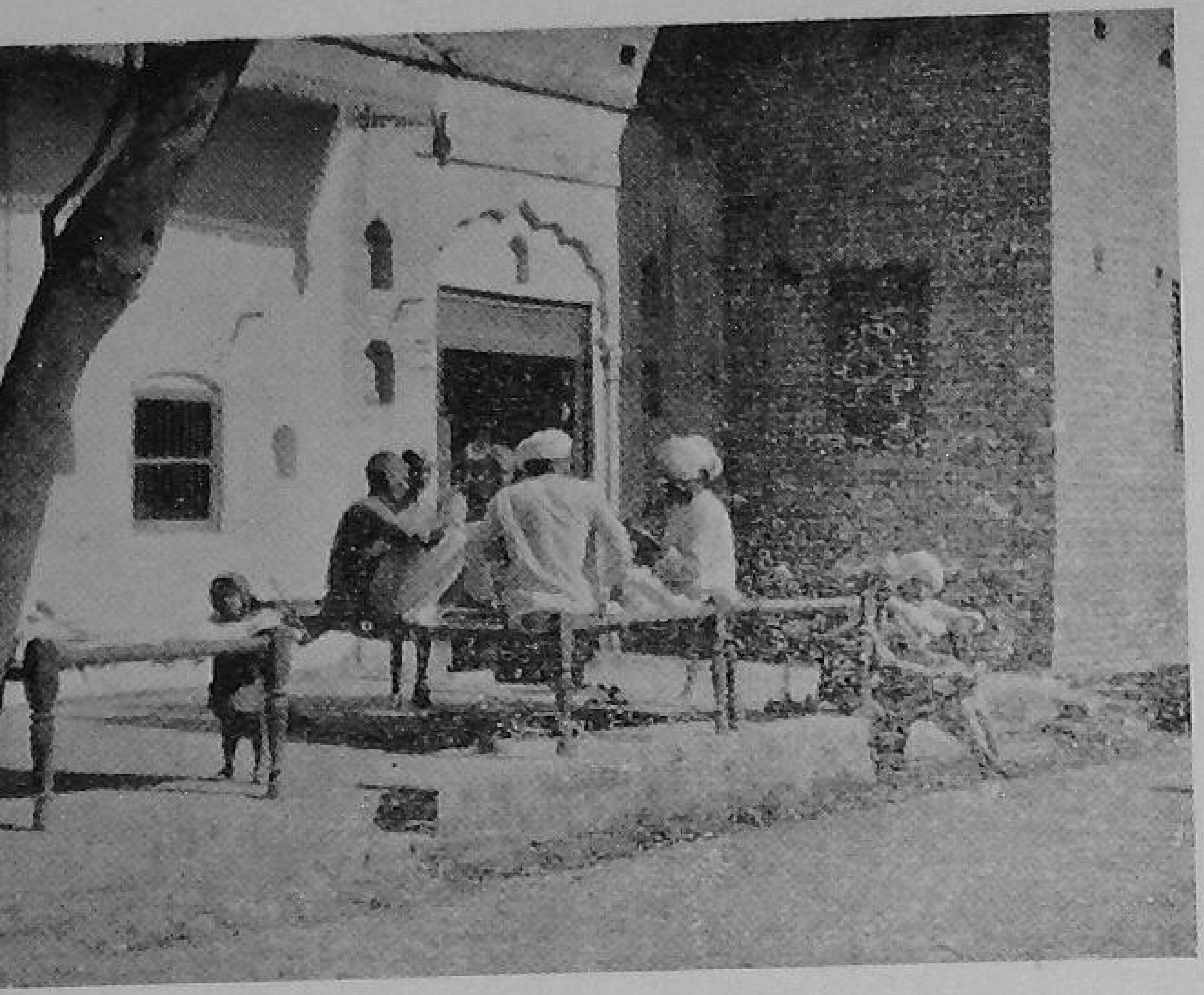
The first reaction is against a new idea. It generates a feeling of uncertainty and some fear (fear of something unknown). Extension workers should, therefore, remember that if they have a new technique or a new idea to be introduced, they must not announce it as absolutely new. The average man does not want to have experiments tried on him. He prefers to wait and see what others will do. The successful way is to blend the new with the old. That is also the way of progress without revolution.

PRE-EDUCATION ESSENTIAL BEFORE TAKING UP DEVELOPMENT WORK

Another important point is that a new technique should be introduced only when the villager understands the underlying idea. Take for example the paving of streets. Where proper extension education has not preceded the paving of streets, they are not kept clean. This is so because the villager does not associate the paving of streets with sanitation and cleanliness. He merely takes it as good means of communication during the night and also during the rains. It is only the informed villager who understands the significance of the paving of streets for village sanitation. It is, therefore, necessary that before the programme of the paving of streets in any village is taken up, villagers are pre-educated about its sanitation aspect, and the arrangements for the regular sweeping of the streets to be paved are agreed upon.

Another important point to remember in this connection is to take note of the habits of our people in regard to the maintenance and repair of the paved streets.

People have not yet acquired the habit of repairing things in time. A man will spend forty thousand rupees on the construction of a nice house, but he will not bother about the annual repairs. Even white-washing of the house is undertaken only on the occasion of some marriage in the family. People will take a long time to acquire the habit of effecting timely repairs. In view of this, it will be advisable to construct things so well that repairs will not be needed soon. It is for this reason that extension workers should so arrange that when the paving of streets is taken up, the pojecting water spouts from roofs are removed, so that there is no danger of damage to that part of the street where the rain water would fall from the water spouts.



No extension worker can be successful unless he has the sympathy of the village leaders, the conscience-keepers of the village

EXTENSION AND AMENITIES PROGRAMME

During the pre-independence period, rural India had been neglected. As a result of this neglect, the villagers had lived in ignorance, superstition, poverty, disease, unhygienic surroundings and without even the most elementary amenities of life. After independence when the attention of the people's Government was focussed on the development of the rural areas, it was considered necessary that, in addition to extension work in agriculture, animal husbandry, village and cottage industries, co-operation, *panchayats*, health etc., provision of the minimum amenities necessary for a civilized living should form an important part of the development programme. It would have been ludicrous if the provision of these basic minimum amenities had been overlooked and we had gone to the villagers preaching extension. For this reason the provision of basic amenities like drinking-water, paved streets and drains, primary schools, radio listening centres, libraries, recreation centres, children's play parks etc., forms part of the rural development programme. In an actual experience of the working of the programme we find that these are the felt needs of the villagers and that we must provide for these felt needs before taking up the work of extension. Unless these felt needs are provided on a self-help basis, that is, with the active participation of villagers in planning, the execution as well as contribution towards the cost of the project, the Block staff including the extension staff will not be able to win the confidence of the villagers, which is so essential for the success of extension work. When an amenities project is under execution, there is a lot of enthusiasm among the villagers and maximum goodwill for the Block staff. That is the most appropriate time for the extension staff to get acquainted with the villagers. The Block staff has earned the goodwill of the villagers for doing something in which the villagers were deeply interested. As pointed out earlier it is a good strategy for extension to combine the interest of the villagers with the interest of the extension staff, that is, things in which the villagers are interested and the things which the Block team wants to introduce. The villagers are primarily interested in an amenities programme. The ideal would be to combine these two interests through, firstly, providing the amenities the villagers need most and to start discussion of the extension programme with the villagers when they are in a receptive mood after the satisfaction of their most urgent felt needs. It is essential for this reason, that the Block Development Officer, Social Education Organizer, Overseer and Extension Officers of agriculture, animal husbandry, co-operation, *panchayats*, village industries etc. should work together like a team and have office in the same building. It is only then that they can keep themselves informed of the amenities programme under execution in the villages and can utilize the opportunity to cultivate aquaintance and friendship with the villagers when they are in their best mood. They can then proceed with the discussions of their extension programme.

ESSENTIAL FEATURES OF EXTENSION

The Block Development Officer and his team of Extension Officers should keep in view the following essential features of extension.

(1) The staff engaged in extension should be dedicated to the programme and should have a capacity to develop good human relationship. Their sympathy for their fellow-men should enable them completely to identify themselves with their work.

(2) Honesty has the first place in any extension programme. As an honest man, the extension worker should recognize his own weaknesses and should in no case hide them. His frank confession that he does not know answers to all questions and does not have the ability to do everything efficiently is actually a source of strength. This will make him appear to be human, in the eyes of the villagers and they will like him for it. No body likes a person who poses to know all and to have no human failing. This is just like the villagers' ignorance which is both a source of strength and weakness. It is a source of strength because the villager accepts his ignorance and does not try to bluff out of it. This reveals a deep integrity often missing among the sophisticated and the superficial.

(3) Villagers and extension workers both learn from failures. All of us learn by our failures as well as by our successes. If village people and extension workers share planning, they gain experience, no matter whether a particular scheme succeeds or fails. As a matter of fact, when carefully laid plans end in failure, a situation arises when the village people show their superior quality. There is much that the extension worker can learn from the undaunted response of villagers to failure. It is nothing new to village people to fail; they live with the threat of failure from year to year. Perhaps this is one of the reasons why the traditional culture-patterns of India assign a very low place to the stimulus of success. An extension worker should, therefore, be concerned with the carrying out of the programme of action, without unduly worrying about the results. If this attitude can be maintained, one can learn far more from failures, since the confusing emotion of disappointment is minimized. The mind remains clear to learn how to avoid a failure next time.

(4) Except in the case of emergency, appointments made with village people must have priority over other appointments. When the appointments cannot be kept the extension worker must inform the villagers concerned of the changes and, failing this, he must explain at the earliest opportunity what prevented him from keeping his appointment.

(5) The extension worker's job is that of education. Through a process of education and by exercising his qualities of leadership at critical moments he brings about changes in the attitude, knowledge and skills. Force and compulsion have no place in this process.

(6) The extension worker should not take sides or join or give allegiance to any faction or get involved in local village politics. He must, however, be well informed of his duties in such a manner, and deal with them so even-handedly that none of them feels neglected. The village community consists of various groups that run along

the caste, locality and other lines. While this grouping is to be understood, discrimination or special favours shown to any particular group on the basis of that group's identity have no part in the programme and are opposed to the extension worker's aims and purposes. The extension worker should, therefore, work with all classes, castes and under all conditions, and not only with a chosen few.

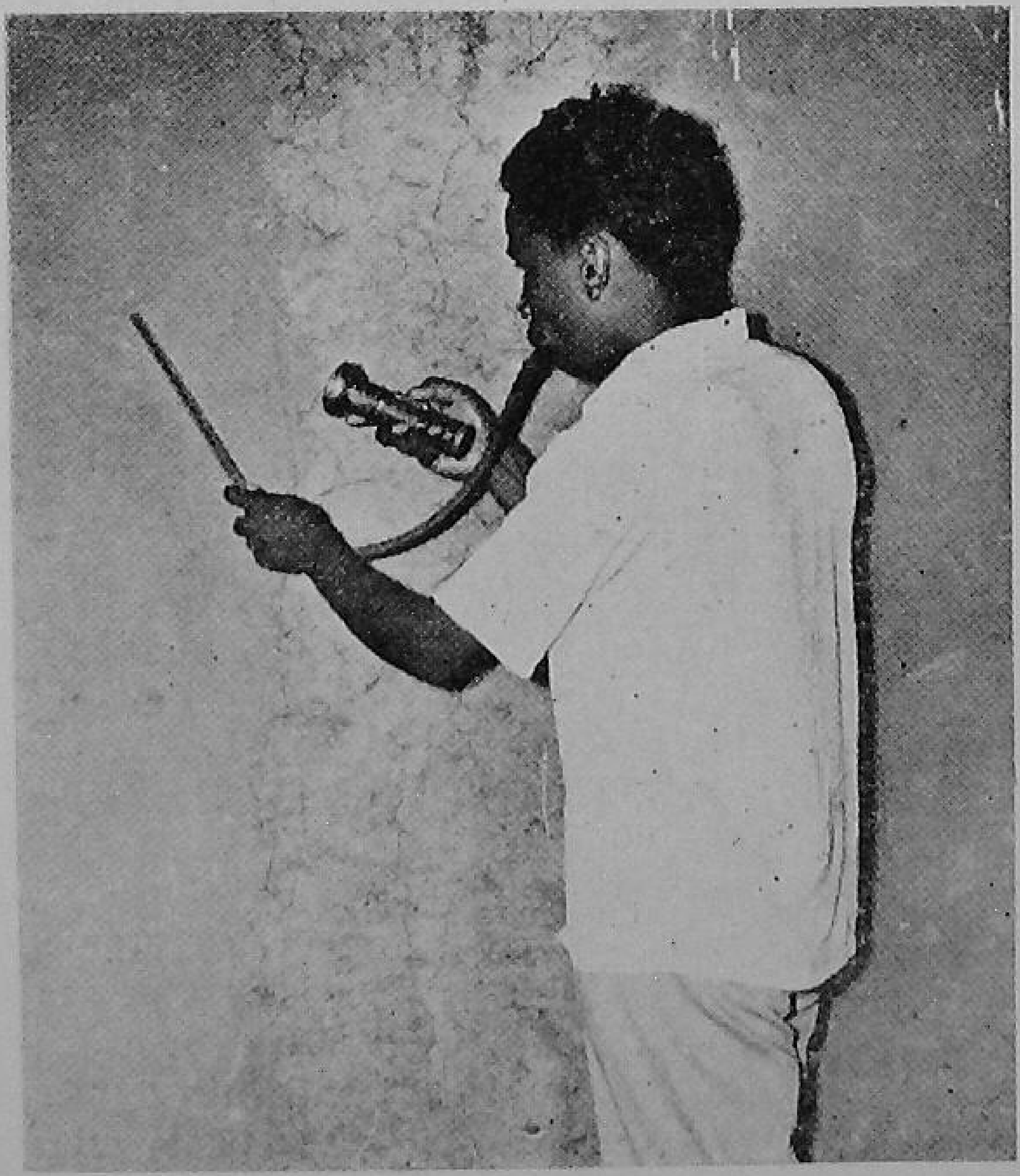
(7) The extension worker should not start work if he cannot finish it. He should follow up every talk, discussion, programme that may have been started in the village. Without this follow-up, the programme will not last and will be just like anything started in the village that was never seen through. The extension worker should not, therefore, start anything that cannot be followed up. He should not create a demand for something that cannot be fulfilled. First, he should be sure of the availability of supply and services, and then create the demand.

(8) The extension worker should not let it seem that all the new ideas are his. Local people must be looked upon as contributors of ideas. If a person has an idea and receives recognition for it, he will work hard for it. Getting people to think for themselves and to present the new ideas themselves is important. If the extension worker has to introduce new ideas into a group, first he should talk privately to a member of the group, so that he brings the idea into the group conversation as his own.

(9) The extension worker should not aim too high at first. He should start with the simplest felt need and fulfil it. This builds up confidence in the villagers' capacities and in his own. Allowance will be made by the people themselves, should the extension worker fail in some of his activities at a later stage, if at first they have seen him deliver the goods even in small matters.

(10) The extension worker should always be the man behind the schemes, encouraging the villagers to take initiative and build up confidence and become more self-reliant. He should remember that the only change really worth while is the change which comes from the people themselves. He should give advice, information, suggestion , guidance, encouragement to enable the people to move the programme forward. Let it be their programme, their plan, their project.

A worker collecting samples of mosquitoes from villege homes during a recent anti-malaria campaign in Orissa



The team on arrival in Delhi

F. A. O. EXTENSION STUDY TOUR

The FAO Agricultural Extension Study Tour Group visited Japan, the Philippines, and India during November-December last year Seventeen representatives of twelve countries and territories in Asia, an ICA observer and three FAO staff members participated.

The tour was organized by FAO at the invitations of the Governments of Japan, the Philippines and India to give effect to the resolutions of the various sessions of the FAO Conference calling for assistance to member governments in the establishment and development of extension services. Specifically, the tour was one of the projects recommended by participants in the Agricultural Extension Development Centre held in Bhopal (India) in December 1955. The project was further endorsed by delegates to the FAO Regional Conference held in Bandung (Indonesia) in October 1956. This Conference placed emphasis on the desirability of organizing study tours for an exchange of experience within the Region.

OBJECTIVES

The major objective of the tour was to provide senior policy level officials and extension administrators with an opportunity of an intensive study of extension organization at all administrative levels in the three countries. While studying the organization, special attention was directed to the relationship between the extension and technical sections within the ministries of agriculture and other appropriate ministries.

Other aspects of extension development observed during the tour were the following:—

1. Extension activities at the field level (agriculture, home economics, and youth);
2. The mechanics of programme planning ;
3. Training and training facilities for all extension workers;
4. The preparation and testing of teaching material for training extension workers and for use by those workers in advising farmers;
5. The operation of activities such as community development and co-operatives;
6. The manner in which the results of research are made available to extension workers, and the problems of farmers in turn are passed through the extension service on to the research institutions;
7. The manner in which supplies and equipment needed by farmers in carrying out extension recommendations are made available.

The Group had opportunities of observing farm and home improvement work in all its aspects from the national level to the farm level in each of the countries, and was thoroughly convinced that a sound system of agricultural extension is a most effective means of raising the working and living levels of the rural people.

SUMMARY OF OBSERVATIONS

It was recognized by the Group that there cannot be a uniform organization for extension work with the village and farm people. Each country, depending upon its cultural background and social and economic conditions, has to develop its own organization and programme of work. Accordingly, the observations made in the following paragraphs are general in nature and can only serve as a guide to the development of sound extension systems in other countries of this Region.

Meaning, Functions and Scope of Agricultural Extension

Agricultural extension is essentially an informal education and its primary purpose is to change the attitudes and practices of the people with whom the work is done. It is aimed at assisting the rural people to bring about continuous improvements in their own physical, economic and social well-being through individual and co-operative efforts. It makes available to the rural people scientific and other factual information, and training and guidance in the application of such information to the solution of the problems of agriculture and rural life.

Prior to 1948, when the modern concept of a co-ordinated and scientific approach was developed with the promulgation of the "Agricultural Improvement Law", extension work in Japan was done by private organizations such as farmers' associations, and was concerned solely with increasing agricultural production. At the time of re-organization, the total number of farm advisers employed by these farmers' associations was 6,500.

In its present form, agricultural extension work in Japan is of a comprehensive type. It covers all advisory work concerned with agricultural production, farm and home improvement and rural youth training, except that of forestry, fishery and sericulture, for which other Government agencies are responsible. It is primarily educational in character and free from regulatory and other Government responsibilities.

With the promulgation of the Republic Act 680, under which the extension service in the Philippines at present operates, the agricultural extension work, formerly under-

taken by separate bureaux and offices of the Department of Agriculture and Natural Resources and other Government agencies, has been consolidated into a single service for farmers. The functions of this service are to disseminate to the people useful and practical information on agriculture, soil and forest conservation, livestock, fisheries and home economics. Its services are directed at improvement in rural areas through education and demonstrations.

It was, however, observed by the Group that the extension workers, especially at the lowest level (Municipal Agriculturalists), in emergent situations and as directed by the authorities, also assist the regulatory and administrative matters. Such assistance consumes time which would normally be devoted to purely educational work.

India, since the launching of the Community Development programme in October, 1952, has been adopting a different approach to serve the rural people. This approach stresses that all aspects of rural life are inter-related and that no lasting results can be achieved if individual aspects are dealt with in isolation. The Group observed that in India this "total approach" to all problems, involving those of agriculture (including animal husbandry), public health and sanitation, adult and social education, rural industries etc. is in marked contrast to the extension work in Japan and the Philippines which deals only with the different fields of agricultural and farm home improvement. The responsibility for the procurement and distribution of supplies, such as manures, etc. has also been entrusted to the extension workers (Village Level Workers, Extension Officers, District Agricultural Officers etc.) in India.

The Group felt that extension work can be effective only when it is entirely educational in nature, and free from regulatory and other government responsibilities.

Family Approach to Extension Work

An extension service must assist the rural people in both earning the means for and actually achieving a better living. It must, therefore, be directed towards improving both the farms and homes of the people, and include work with families as well as individuals, women as well as men, and youth as well as adults.

The 4-H Club work and home demonstration programmes were well organized in Japan and the Philippines. In Japan, youth work was undertaken mainly in the age group ranging from 20 to 30 years, which

Dr. Panjabrao Deshmukh, Union Minister for Co-operation, addressing the members of the team.

is actively engaged in farming. Among the junior members, whose ages range from 14 to 20, the programme is confined to schools. In both these countries women are provided with adequate opportunities, through the Rural Improvement Clubs in the Philippines and Home Improvement Practice Groups in Japan, for training in home improvement and management. Information on food and nutrition, health and sanitation, clothing and home industries, and practice in actually doing such things as preserving fruits and vegatables is given through these clubs and groups.

In India, youth work adapted to local conditions has been initiated by the States, and very recently the Ministry of Community Development has organized a separate division for promoting youth organizations on a countrywide basis. The Social Welfare Board, which is a non-official body of women in India, is also promoting programmes for the training and organization work with village women.

The group felt that the value and effectiveness of extension work could be considerably increased if greater attention were given to the programmes for youth and women in those areas where so far they have been somewhat neglected.

Extension Organization

The group observed considerable differences in the organization of extension services in various countries. It was recognized that there can be no one pattern of organization for agricultural and home economics extension work with farm and village families. In any one country, the most suitable kind of organization varies according to the stage of development. For example, where the farm and village population is largely illiterate, and the number of trained people, and Government resources are limited, it may be both necessary and desirable to channel extension work in all fields—agriculture, animal husbandry, health, literacy, crafts, etc.—through one individual. Even if sufficient trained personnel and financial resources were available for the employment of specialists in various fields to work at the village or farm level, this might not be desirable for a number of reasons including the following:—

1. The villager (cultivator) is suspicious of outsiders, particularly the Government employees; and while one worker might gain the confidence of the cultivator and be able to do effective work, a number of workers might only confuse him and would probably be unable to gain his confidence.

2. The villager, at this stage, does not need and cannot absorb highly technical information.

3. Where a number of subject-matter specialists contact the cultivator, the specialist who is the best "salesman" may promote his interest to the detriment of other subjects whose importance in the area may be much greater.

As the general standard of education of the farm and village population rises, and more trained personnel and resources become available to provide employment to the workers, increased specialization may be both feasible and of value. For example, in one village now there may be an adviser working in agriculture and animal husbandry only, but as the standards in this village improve, specialists in agriculture, horticulture, dairying, poultry etc. may also become desirable. Experience has, however, indicated that even in the most advanced areas where agriculture is diversified (crops and livestock) at the village and farm levels, an adviser is needed, who can look at the farm operation as a whole, and specialists appear to be appropriate only where a single enterprise—citrus culture for example—is carried out. The successful work of generalists at the village and farm levels depends upon their being supported by specialists at the next higher administrative levels. As the development proceeds, both the need

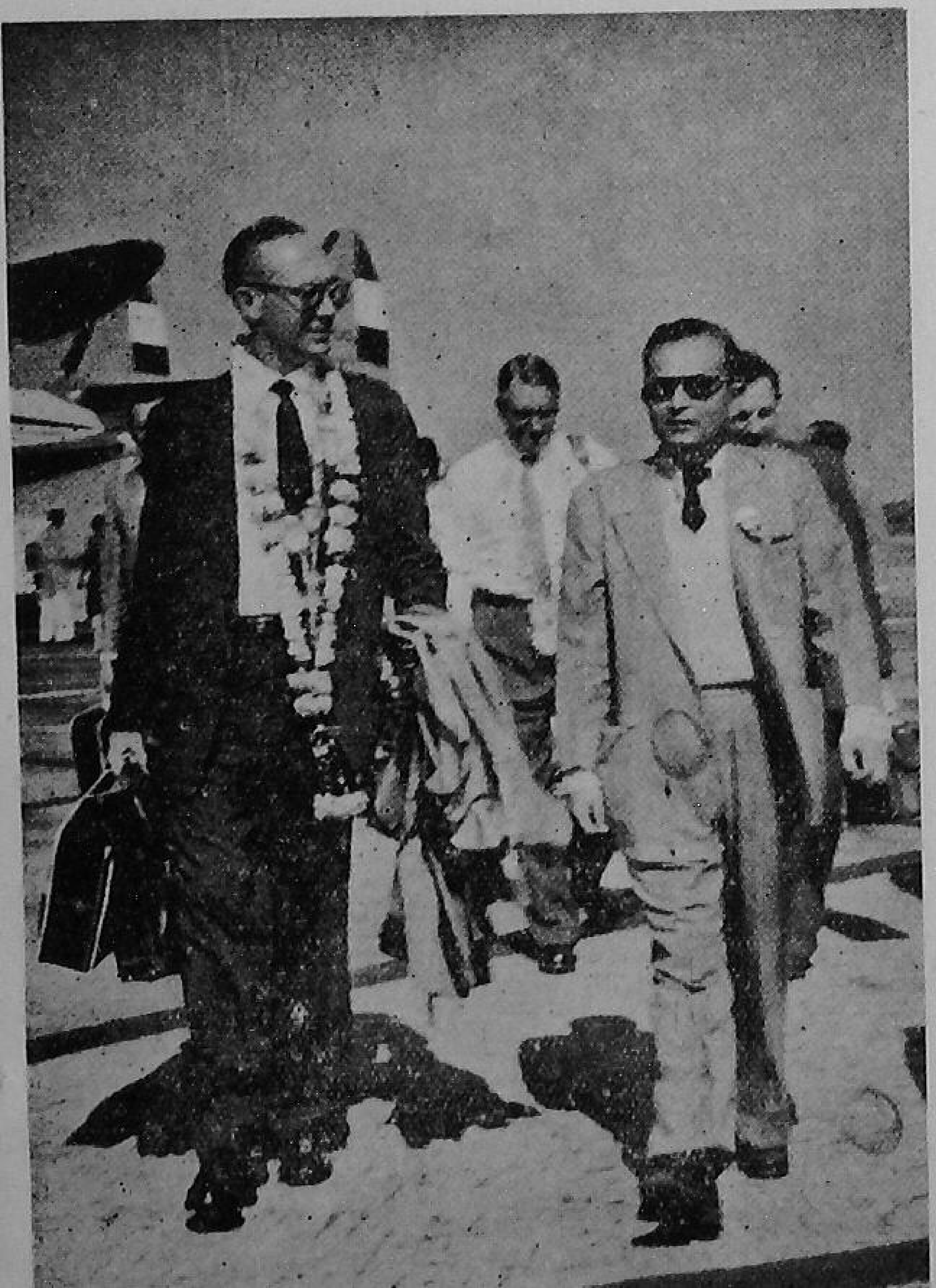
for and possibility of providing specialists at low administrative levels will increase. Taking all these points into consideration, the group stressed that in order to develop an appropriate extension organization, each country must be keenly aware of the needs imposed by its present and changing social, cultural and economic conditions.

Relations between Extension Services and other Agencies Working with the Rural Population

Agricultural extension, as defined today, operates in all fields of agricultural improvement, including agricultural production and conservation, primary agricultural processing, marketing of agricultural products, forest conservation and use, home economics and nutrition, rural youth organizations and training. In the context of the community development programme in India, which intends to effect an all-round development of the rural community primarily through its own co-operative efforts, extension also includes other fields of rural development, such as health and sanitation, adult and social education, rural industries, rural housing, etc.

As indicated earlier in this report the ultimate aim of extension services is to improve the well-being of all rural people within the framework of the national, economic and social policies. The different agencies engaged in this educational effort should, therefore, pool their resources so as to utilize them in the best possible manner for the fulfilment of this objective.

Dr. Kimmel and Shri S. K. Dey, leader of the team in India



In each of the three countries visited by the Group, it was noticed that an effort is being made to integrate or co-ordinate the work of all agencies engaged in the education of farmers.

In Japan the group had an opportunity to see a pilot project in which the Ministry of Agriculture and Forestry and the Ministry of Education are co-operating. Under this project, an area agricultural extension office has been established in the grounds of an agricultural high school with a view to bringing about closer co-operation between formal and informal education in agricultural and home improvement. Another example of the co-ordination in agricultural extension work in Japan observed by the group was that between the farm advisers employed by the Government and those employed by the co-operative societies. The emphasis in Japan, however, seems to be on an informal co-ordination of programmes of work between government agencies rather than on the establishment of special administrative arrangements.

With a view to achieving better co-ordination between agricultural extension and the Community Development programme in the Philippines, an "Inter-Departmental Co-ordinating Committee on Community Development", in which the Bureau of Agricultural Extension is also represented, has been set up. The Bureau of Agricultural Extension works with the office of the Presidential Assistant for Community Development (PACD) in a number of activities, such as the grants for aid projects, training programmes carried out at the Community Development Training Centre, and administration of several Community Development agricultural projects.

The concept of co-ordination and integration has been further crystallized in India's National Extension Service and Community Dvelopment programme where extension work in agriculture is part of a much broader scheme dealing with all aspects of village life. The experience in India has indicated that when different departments of the Government approach the villager, each from the aspect of its own work, the villager becomes confused, and no permanent impression is created. The approach to the villagers, therefore, has to be made not through a multiplicity of departmental officials, but through a common agent, the multi-purpose village level worker.

The Group felt that in the initial stages of rural development, when the literacy rate is not high and all aspects of village and farm life such as health, sanitation etc. need urgent attention, the possibility of integration or, at least, effective co-ordination of all extension services to rural people, should be considered with a view to providing a maximum of effective services with the limited resources available.

Relations between Extension Services and Farm and Village Organizations

The existence of strong farmers' and villagers' organizations makes it possible for the extension service to extend its influence over a much wider area. Various kinds of farmers' and village organizations were studied in each of the three countries. These organizations may be broadly classified into the following categories:

1. Farmers' co-operatives

2. Village committees such as Barrio Councils in the Philippines and Panchayats in India.

Practically all farmers in Japan are members of one or more co-operatives. In every village there is a general purpose co-operative society which handles marketing, processing, purchasing and credit. The Group observed that many of these co-operatives employed their own agricultural advisers to assist member farmers. The Group felt that the employment of advisers by the co-operatives made possible the development of a close link between the co-operatives and the Government extension service.

The co-operative societies — Farmers' Co-operative Marketing Associations (FACOMAS)—in the Philippines, although comparatively new and not yet covering all farmers, appeared to be making good progress.

In India, the Community Development programme places a great deal of emphasis on "co-operation" and an effort is being made to re-organize the entire co-operative movement with a view to making it an effective institution for dealing with the economic problems of farmers.

It was observed that in a country like Japan, where nearly all the farmers belong to co-operatives, the extension worker can devote his time almost exclusively to educational work. He is free from the non-educational tasks such as fertilizer allocation and seed distribution. The Group, therefore, strongly felt the need for an organization of farmers' co-operatives, not only from the economic view point, but also to enable the extension workers to devote more time to educational work with farm families.

Village committees such as the Barrio Councils in the Philippines and the Panchayats in India can be important organiza-

tions in formulating Development and Extension programmes based on the needs of the village people. The Group, however, could not ascertain the extent to which such committees were actually participating in programme building and implementation.

As the number of extension workers at the village level is not sufficient in any of the three countries, taking into account the large number of farmers to be contacted, the development of the local organizations of various types appeared to be of great value in carrying out efficient extension work. It can also be said that the farmers' and other village organizations are training grounds in democratic processes and mutual self-help, and should be encouraged. In this connection, training of village leaders is also important and is systematically being organized in the three countries.

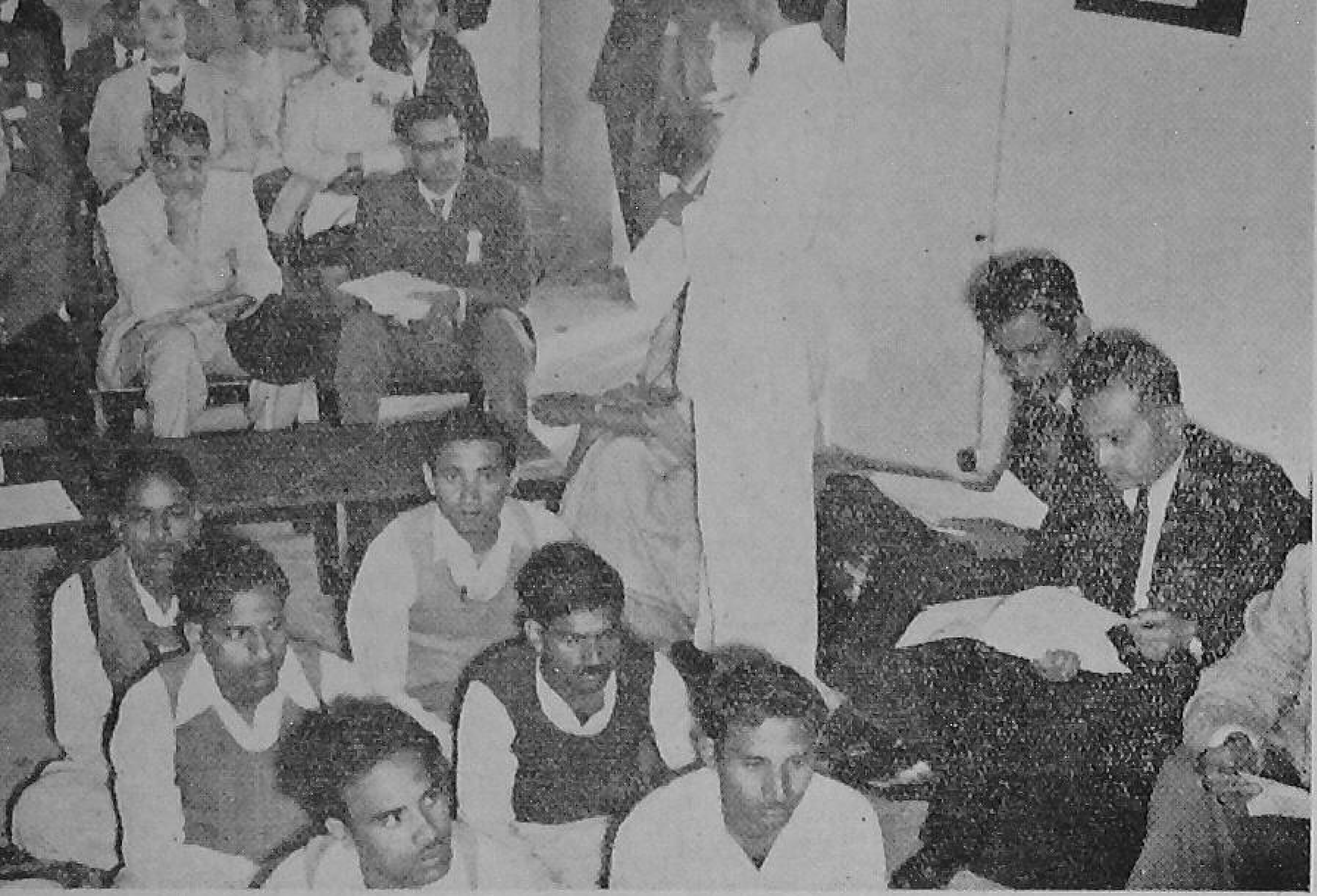
Relation of Agricultural Extension to Research

In each of the three countries an effort is being made to keep extension and research closely related to each other. Communication between the research and extension workers is maintained at various levels through periodical meetings, refresher courses and visits by extension workers to research stations. All of these measures help the subject-matter specialists to convey the technical findings of the research institutions to the extension workers, and at the same time the extension workers are able to convey the problems of the farmers to the research officers.

It seemed to the Group that sometimes research, testing and demonstration were not sufficiently differentiated. The job of the extension worker is to demonstrate. Accordingly, the results of research carried out at the Experiment Station are ready for him only after they have been tested under the actual farm conditions and found workable. To demonstrate what has not been proved is to invite failure and loss of confidence in extension in general.

In Japan, where extension work is undertaken primarily by the Prefectural Governments, the main source of technical information is the Prefectural Experiment Station. The subject-matter specialists employed by the Prefectural Governments are the link between research and extension. These subject-matter specialists are stationed

The team visiting a Home Science Training Centre



In an Extension Training Centre

either at the Prefectural Government Administrative Headquarters or at the Agricultural Experimental station.

Another useful device for bringing about a closer relationship between extension and research was observed in Japan. An institute for the pre-service training of extension workers is attached to each Prefectural Experiment Station. Instruction to extension workers is given both by the research workers of the Experiment Station and extension subject-matter specialists. The Prospective extension workers thus not only receive subject-matter training but also become familiar with the Station facilities and are able to develop those personal contacts with the staff that will later facilitate the maintenance of close working relationships.

In the Philippines, the agricultural colleges and other research institutions are the main sources of technical information and the subject-matter specialists employed by the Bureau of Agricultural Extension convey scientific information to the regional, provincial and municipal extension workers. It was observed, however, that the extension subject-matter specialists are stationed, at the national level only, in a unit called the Specialist Services Division of the Bureau of Agricultural Extension. The lack of specialists at the lower administrative levels means that liaison between the field extension workers and subject-matter specialists is neither as close nor as direct as might be desired.

The Central Research Institutes, the Commodity Committees, the Indian Council of Agricultural Reasearch at the national level, and the State Experiment Stations and colleges, all provide technical information to the extension service in India. However, despite considerable agricultural research activity in India, there is no organized method of communicating the information from the Research Institutes to the extension workers. The contact between research and extension is maintained only through periodical conferences and by personal contact.

The Group felt that extension and research must be closely related and that one way of doing this was through the employment of the extension subject-matter specialists. The setting up of an institutional channel, such as the employment of these specialists at different levels, was considered necessary.

The Group also emphasized the desirability of strengthening existing research and, in countries where it is weak, adding new research projects, so that extension work may be based on solid foundations.

Pre-Service and In-Service Training of Extension Personnel

Pre-service and in-service training for all categories of extension personnel is being given in all the three countries.

Extension personnel in Japan comprised the subject-matter specialists and the farm and home advisers. The farm advisers are trained by each Prefectural Government at its Farm Advisers Training Institute located in the Agricultural Experiment Station. The Training Institute admits graduates of agricultural high schools, and offers a two-year course of instruction. The Prefectural Governments also provide facilities for the in-service training of farm advisers. The training is of two kinds, general (covering a variety of subjects) and special (covering one subject only). Each farm adviser undergoes training of the first type once a year, and of the latter type, once in five years.

An "induction training" of three to four weeks' duration is given to all the newly employed extension workers and home demonstrators in the Philippines. Similarly, all regional and provincial extension workers and home demonstrators are given three to five days in-service training on two or three relevant subjects, four times every year at the regional offices. The municipal workers are in turn given in-service training at the provincial offices but only in one subject at a time. In addition to the above training, once in five years each field staff member is given an opportunity to attend a six-week intensive training course at the College of Agriculture at Los Banos.

The village level workers in India are at present being given 18 months' training in agriculture and other subjects, such as health, sanitation, education and extension. Similarly, the women village level workers, who are employed in the intensive development blocks, are given one year's training in home science at the home science wings attached to the extension training centres Other categories of personnel, such as extension subject-matter officers, are also being trained in extension methods and techniques in short in-service training courses organized for the purpose.

Two members of the team inspecting a pedigree horse i a Livestock Breeding Station in Uttar Pradesh

It was recognized by the Group that pre-service and in-service training of all extension personnel is necessary. The lack of suitable training of these types appeared to be the bottle-neck of the whole extension programme. It also seemed that not much emphasis has been laid so far on training in the philosophy and methods of extension.

The training of teachers, primarily in extension teaching methods, who in turn will be responsible for training extension workers, is thus urgently needed.

Programme Planning

Programme planning, involving the participation of the people is still in the early stages of development in many countries.

The extension programme in Japan is prepared at the area level. Generally this is done by the area extension office sending out questionnaires to the farmers to ascertain their needs. Direct contacts are made by the advisers with farmers and farm women's organizations to find out their views on the types of programme to be carried out; the subject-matter specialists are also consulted.

In the Philippines, relevant information concerning national policy and plans is passed down by the Bureau of Agricultural Extension to the regional, provincial, and municipal offices to guide them in the preparation of the local programmes. Included in the local plans, which are prepared first on the annual then the monthly basis, are the schedules showing the kind of work to be undertaken during each month by the municipal workers.

The Community Development and National Extension Service programmes in India were the part of the first and second Five Year Plans in which broad policies and goals have already been established. Within the framework of these goals, an attempt has been made to prepare programmes primarily with the help of the local organizations, such as village panchayats, block advisory committees, district planning committees, etc. The plans, based on available resources, are first prepared at the village level and then consolidated into block, district, and finally State plans.

Although in each of the three countries efforts are being made to get the rural people to plan their own programmes, it was observed that, at present, the activities were largely Government planned. However, it is imperative that eventually the planning of extension programmes should be done by the rural people themselves with the Government assistance, and the Group felt that this goal should always be kept in mind.

Programme Implementation

The Group observed that farm and home advisers use a number of educational methods to put their ideas across to the farmers and their wives. Among the methods used, the cultivator-owned demonstration farms, where all the improved techniques are simultaneously demonstrated to the cultivators, appeared to be a very effective extension method in Japan. The method and result demonstrations were also found to be most effective in the Philippines and India.

The organization of special classes for farmers has been found to be an effective way of promoting agricultural improvement in the Philippines.

It was recognized by the Group that each country, depending upon the cultural background and socio-economic status of the people, with whom the work is done, has to evolve its own extension methods. Research is best suited for transmitting scientific information to the farm people. The Group was impressed with the work of this type being done by the Planning-cum-Action Research Institute in Uttar Pradesh.

Evaluation

The Group felt that evaluation was an essential element in the successful operation of an extension programme. A careful and

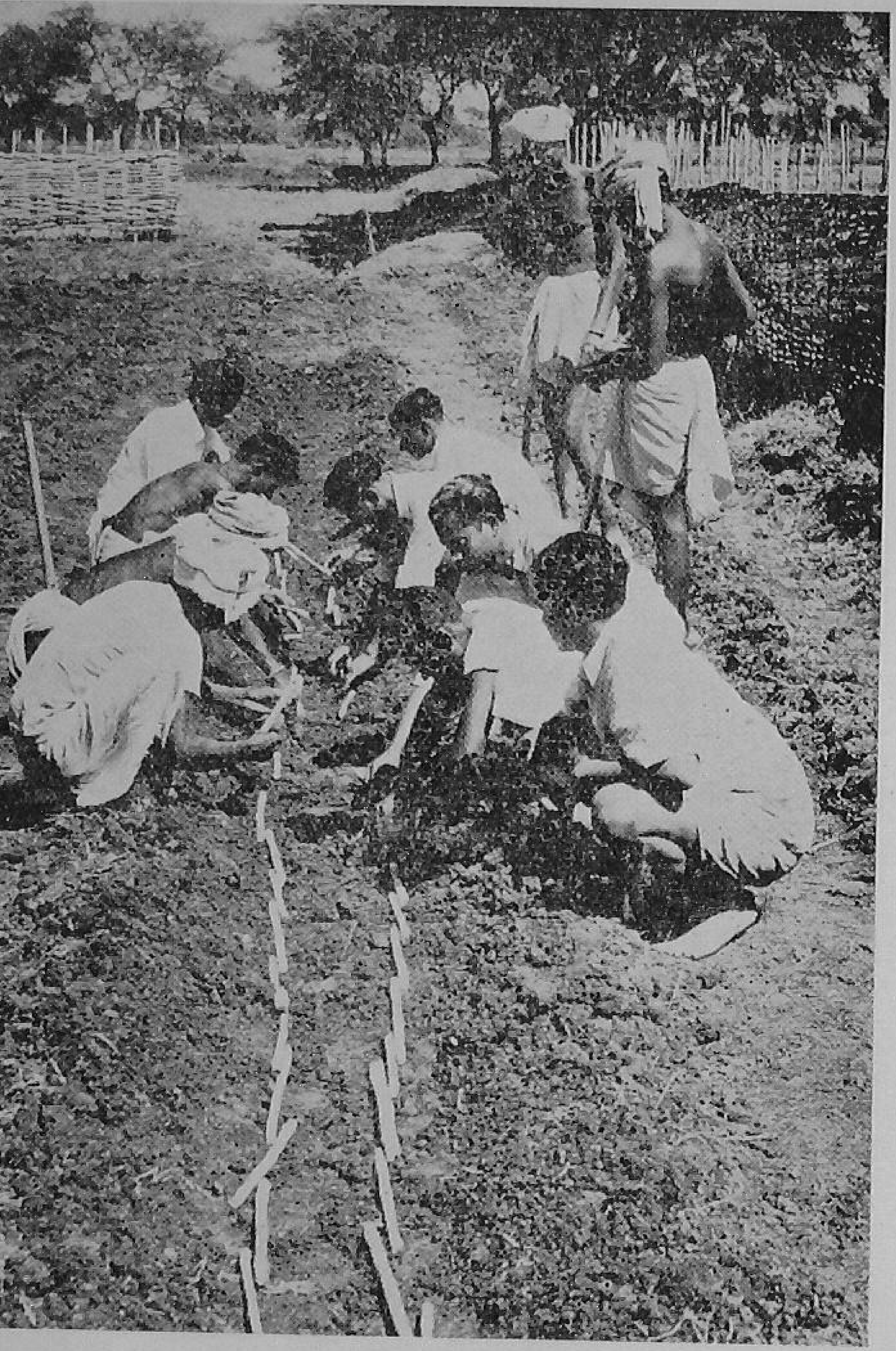
continuous evaluation reveals weak points in the training and field programmes and also indicates which extension methods and practices are proving effective and acceptable.

Evaluation in Japan and the Philippines is being carried out by the extension services themselves and is based largely on reports and inspections.

The evaluation of the Community Development and National Extension Service programme in India is being done by an independent agency, the Programme Evaluation Organization, established for this purpose under the Planning Commission. In addition, inter-State and regional seminars, which include among their participants persons from all levels, are organized annually to discuss the success and failure of the programme and to help in its evaluation.

The Group felt that a constant evaluation of the programme, either internally, by the workers of the extension organization, or preferably by an outside agency, was desirable to provide guidance for improvement of the future extensionwork.

In a village in Uttar Pradesh



During their work, the students of agriculture learn how to put across their knowledge to the cultivator. Here a group of students is seen demonstrating the improved method of sugarcane planting

Village Apprenticeship Programme in Undergraduate Extension Teaching

— S. R. CHOPDE

With the launching of the various extension projects, it was found necessary to provide a scientific and supervised field training in extension methods and techniques to the students of the agricultural colleges, so that immediately after graduation they could be posted as Agricultural Extension Officers without further training. With this end in view, during 1952, Extension Wings were established in five agricultural colleges in the country.

The College of Agriculture, Nagpur, and the Nagpur University were the first in India to implement the scheme during the year. Many more colleges of agriculture have now included extension as a compulsory or optional subject in their syllabi.

At the Nagpur Agricultural College Extension Wing the nature of practical training in extension is a co-ordinated effort of the teaching and development sections

of the wing. The teaching staff chalk out a programme of practicals a fortnight in advance, giving enough time for the development staff for creating necessary situations in the villages and for arranging the required facilities for effective practical training.

As the introduction of Agricultural Extension as an additional compulsory subject for all the four years was a new enterprize, many problems had to be faced in the initial stages. Considerable thought had to be given in planning the training course for each year, to train the teaching staff in the nature, scope and method of dealing with each topic prescribed in the syllabus, and to build up co-ordination between the teaching and development sections, so vital for the conduct of an effective practical teaching of the subject.

THE VILLAGE TRAINING PROGRAMME

For the purpose of practical training the students are divided into groups, and each group visits one particular village for all the four years, except when a special teaching programme of common interest is arranged by the development section of the wing in other villages. This helps making and maintaining better contacts between students and the villagers ; the villagers do not get perturbed, which might happen if different students approach them for different types of work.

Each aspect of parctical training in extension is dealt within four stages. Let us take the example of giving a method demonstration. The students *first* learn about demonstrations in the class room. In the *second* stage the development staff arranges for a demonstration in the village where the students observe and ask questions. In the *third* stage the students are asked to give demonstrations in the village under the supervision of the development and teaching staff. In the *fourth* stage there is a thorough discussion on the good and bad points the staff members have noticed in the demonstrations given by the students. Such a procedure is followed in practically all aspects of training with suitable modifications wherever necessary.

One of the major difficulties is in finding time for practical training in extension. In this respect there are two schools of thought. One that the students be stationed in villages for a continuous period of four to six weeks, and another that they visit rural areas every week for four hours. There may be strong and weak points in each method, but by experience we feel that weekly visits have definte advantages as listed below :

1. There is a continuity in their learning of theory in class rooms and then practising what they have learnt in villages without any time-lag.

2. The students get the opportunity of visiting villages all the year-round. This helps them in their observation of and participation in the village way of life.

3. There is no loss of time. The students visit villages to learn or practise a specific project which is completed in the practical periods.

4. The normal activities of the development section can be readily used for training students in weekly visits, as compared to the development staff being required to create situations for the training of students when they camp in villages. There is a considerable difference in these two situations in respect of the reality of purpose.

5. Weekly visits throughout the year provide more elasticity in arranging practical training.

6. Weekly visits give the students opportunities to make follow-up studies. They can see for themselves the results of what they had said or done in their previous visits.

7. Lastly, weekly visits help in breaking the monotony of the class room and laboratory work.

THE ORDER OF TRAINING

Regarding the subjects of practical training we are of the opinion that during the first two years the students should be acquainted with the village as a whole, that is, the agricultural practices prevalent in the village, problems of rural housing, sanitation, educational and health facilities available in the village etc. Extension terminology can be introduced at this stage with the elementary knowledge of the village patterns and characteristics of rural life in India etc.

During the next two years the subject should, however,be dealt with more exhaustively. In practical training emphasis should be on the use of extension methods, planning and visual aids, determining the felt needs of the people, motivation, organization, planning and implementation of extension programmes, practice in public speaking, conducting meetings, leading group discussions, writing extension articles, complete insight in the organizational set up of the departments at various levels in relation with the job of an extension officer.

There is always a tendency within and outside the extension teaching staff to confuse subject-matter training with the extension-techique training. Subject-matter is the knowledge of the subject which needs to be put across to the cultivators and has to be used in extension teaching, but the emphasis should be on *how* to put the matter across. It is in this respect that the students should be trained in extension practicals as, for example, in the case of a method demonstration on composting. During extension practicals the students need not be told regarding the importance of compost as a manure, or how to do composting, but they should be taught how a successful demonstration can be staged in the villages as a teaching method, to convince the cultivators of its utility, and the emphasis should be on the demonstration technique.

There is a tendency of putting greater emphasis on actual physical work by trainees. In so far as it involves the teaching of dignity of labour or preparing the mind of the students it may be desirable. The important point is to equip him with the techniques of arousing and sustaining the action on the part of the cultivators. In other words the student should know and be able to show to the cultivators how things could be done, but should avoid doing things for the cultivators. This, in short, should be the aim of extension training.

I. A. R. I.'S Intensive Cultivation Scheme

A PROJECT IN AGRICULTURAL EXTENSION

— P. C. Raheja and A. R. Khan

The Indian Agricultural Research Institute's Intensive Cultivation Scheme, a project in agricultural extension envisages greater agricultural production by awakening a sense of judicious use of labour and capital on the land. It is meant to improve the village and villagers in all respects, namely, to make them responsive to improvements, give them an urge to improve their life and surroundings and introduce the elements of joint responsibility and co-operation. In effect it is to stop the erosion of soil and the erosion of man. Obtaining higher yields of crops and minimizing wastage are the first steps towards improving the standard of living.

POTENTIALITY OF DEVELOPMENT

Nineteen villages with an area of 24,000 acres are allotted to the Institute by the Delhi Administration for launching the scheme. The scheme aims at an all-round development of these villages by tackling the problem on the undermentioned four fronts :—

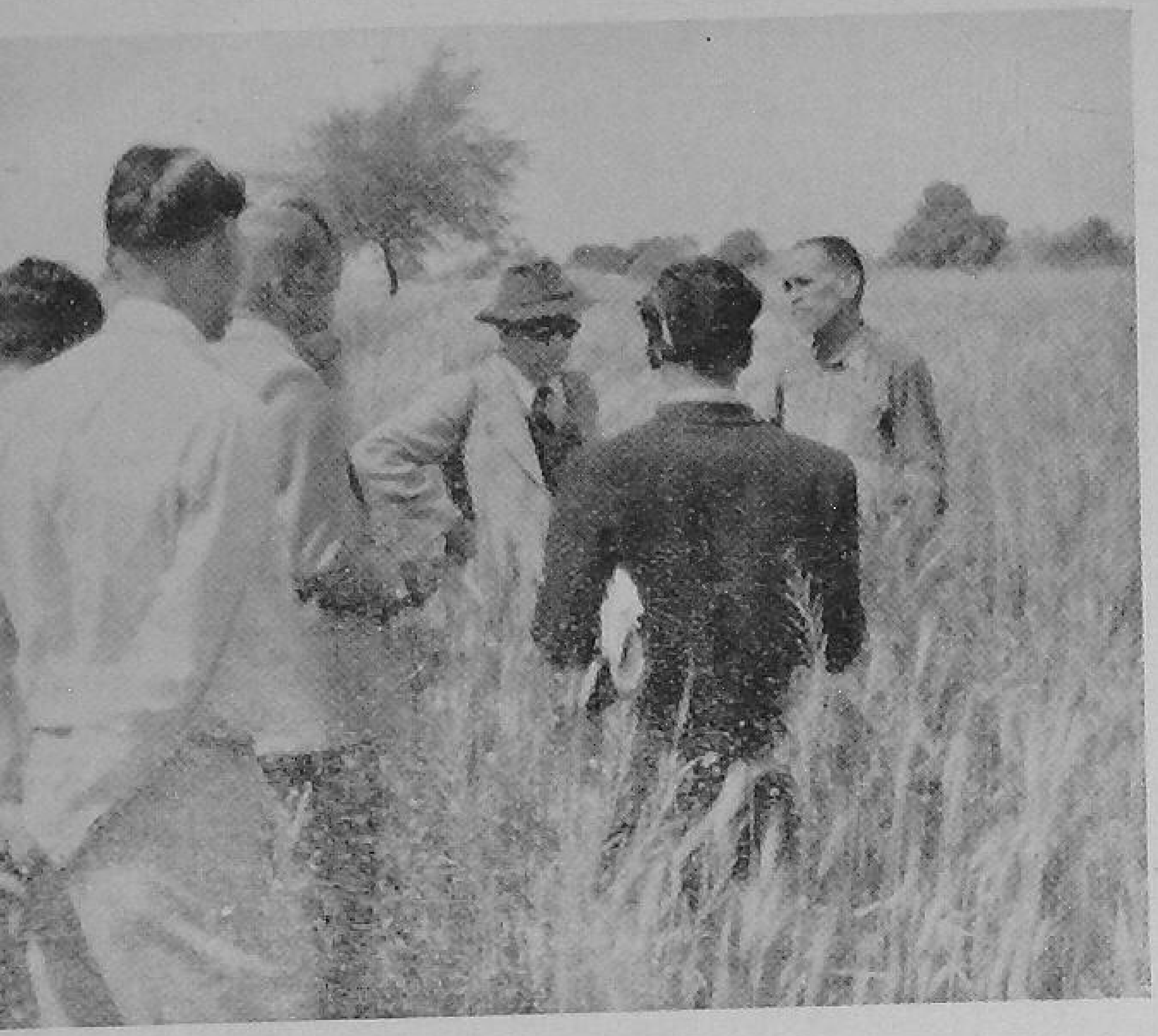
(A) Application of factors contributing to increased output.

(B) Control of factors of frustration and wastage.

(C) Conservation of resources.

(D) Improving efficiency in supervision and co-ordination.

With the major resources of the Indian Agricultural Research Institute the programme to tackle these four fronts has been in operation since 1951, and the work has been of extensive nature. The plan of work includes the demonstration of improved varieties of crops and of dosages, time and method of application of manures and fertilizers, introduction of green manuring on extensive basis on fallow lands; conservation of soil fertility; practice of double cropping; demonstration and introduction of improved tools and machinery; efficient use of water for crop production; demonstration of dry farming practices; conservation of farm and village waste; introduction of dry hygienic latrines to compost all human excreta; control of pests, diseases and wild animals; reclamation of alkaline and culturable waste lands; drainage of lands subjected to water logging; introduction of subsidiary industries; raising of fruit plants and vegetable culture; improvement of the livestock etc., etc. Special emphasis is laid on the value of an efficient use of labour and conservation of time, and increasing efficiency in farming by timely operations, economy in expenditure, co-operative marketing, and initiation of projects of common interests leading to a higher standard of living. The units of the Land Army of the Institute, panchayats and multipurpose co-operative societies of the area help improvement in the rural conditions.



e officers of the Institute regularly visit the villages under the scheme, to have a first-hand knowledge of the farmers' difficulties

The Project headquarters are at Nangloi where the Intensive Cultivation Scheme office, an Agricultural Museum, a Central Seed, Manure and Implement Store a Multipurpose Co-operative Society, and a Key Village Centre are located. A privately owned Implements Workshop which manufactures improved implements under the supervision of the Project leader, is also functioning at Nangloi.

The over-all planning of the programme is done by the Director, Indian Agricultrual Research Institute, New Delhi, with the advice of the Heads of the Divisions of Agronomy, Agricultural Engineering, Botany, Soil Science and Agricultural Chemistry, Entomology, and Mycology and Plant Pathology. In the execution of the programme, the Agricultural Development Officer is guided by the Heads of these Divisions. A representative of each Division assists the field staff for expert advice and scientific execution of the programme.

ORGANIZATION OF THE PROJECT

The programme has been broken into targets. These targets have been worked out on scientific land transformation basis evolved by the Institute. The four phases, namely (a) planning; (b) demonstration; (c) saturation and (d) co-operation go hand in hand. In each of these 19 villages, model-farms of ten to 15 acres are proposed to be set up to demonstrate improved practices for increasing production. The appraisal of the programme is conducted on the random sampling basis and by the log-book system.

The Agricultural Development Officer is incharge of the project. He is assisted by two field assistants and four extension demonstrators. Each of the extension demonstrators executes and supervises the integrated programme of demonstration and saturation, in five villages. A Veterinary Assistant Surgeon supervises the working of the Key Village Scheme in this area.

A Key Village Scheme with four Sub-Centres and with its headquarters at Nangloi is also functioning in the area. The sites for Sub-Centres have been selected so as to serve the maximum population of livestock by bulls maintained in the Centres.

The Agricultural Development Officer keeps liaison with the panchayats of different villages to initiate the Community Development work. In these, the Land Army Units of the Indian Agricultural Research Institute, and the Central College of Agriculture take a prominent part.

Initiative is taken to organize co-operative societies for the sale and purchase of agricultural commodities. Such societies are encouraged to stock fertilizers, fungicides, pesticides, implements and other supplies for cultivators. Local blacksmiths and other artisans are encouraged to manufacture improved implements and tools.

AGRICULTURAL DEMONSTRATIONS

The keystone of agricultural development is the demonstration of improved seeds, fertilizers, new practices etc. Very intensive programme in this respect has been carried out over a number of, years in the area. The number of demonstrations conducted in different years are listed as under :

YEAR	Total No. of Demonstrations	Improved varities of crops	Other Fertilizers, G. Manures etc.
1950-51	234	190	44
1951-52	311	274	37
1952-53	244	202	42
1953-54	473	403	70
1954-55	720	583	137
1955-56	777	359	418

The Institute has been engaged in evolving new varieties of crops for the past 50 years. It has evolved disease resistant varieties of wheat, *arhar*, linseed, barley, gram, etc. Besides disease resistant, the new varieties are high yielding. Rust resistant varieties of wheat were first demonstrated in the area in 1950-51. Out of these N.P. 718 and N.P. 775 were selected for multiplication on the medium to heavy soils, and light soils respectively. N. P. 718 now occupies a major portion of the wheat area. Other improved varieties introduced are : barely N. P. 13, oat N. P. 1, gram N. P. 58, sugarcane Co. 647, tobacco N. P. 20, cotton F. 216, *bajra* T. 55, and cowpeas N. P. 397. Seeds of improved vegetables like peas N.P. 29, chillies N. P. 46A, potato Up-to-Date, sweet potato Pusa Sufaid, tomato Meeruti selection and Pusa Plum Red, *bhindi* Makhamali Bhindi' are introduced in these villages. These varieties are slowly gaining ground as vegetable growing is becoming popular amongst the villagers.

Fertilizer demonstrations occupy an important place in the activities of the project work. A series of fertilizer demonstration-cum-trials are annually laid out in the cultivators' fields. The record of fertilizer response is correlated with soil tests carried out by the Division of Soil Science. These demonstrations are rapidly paving the way for the farmers to take up extensive use of fertilizers. A schedule of fertilization of crops in the area has also been drawn up.

Demonstrations of green manuring are also being conducted on the cultivators' fields.

SATURATION PROCESS

Demonstrations are followed up by the saturation of the area with the improved seeds, fertilizers etc. Amongst the improved varieties of wheat introduced in the area, the outstanding one is N. P. 718. It is rust resistant, matures early and does not need the last irrigation for seed maturity. The variety is able to withstand lodging and, therefore, fertilizers can be used with profit on the fields on which this variety is cultivated and which are ordinarily deficient in nutrients.

Year-by-year the area under this variety has been increasing. In 1955-56, about 2,099 acres were put under it. The Punjab C 591 variety of wheat which has been the outstanding variety in this area all these years is being gradually replaced. The stand of N. P. 718 has so much impressed the farmers that the adjoining districts of Gurgaon, Rohtak and Karnal are also getting saturated by N. P. 718.

For the saturation of the area under N. P. 718, the Institute has no funds for the purchase of multiplied seed from the cultivators. A system was initiated in the villages, whereby the N. P. 718 seed was taken over from the cultivators, and replaced by an equal quantity of C 591 wheat.

Simultaneously with the introduction of the improved wheat varieties the barley varieties N. P. 13 and Kanpur 251 were also introduced in the area. Barley is an important dry crop of this tract, particularly on the sandy soils. As more and more demonstrations were conducted, more and more seed became available to the farmers. In consequence N. P. 13 has been adopted as the predominant variety on the *barani* areas. Now over 60 per cent of the area is saturated with the new barley varieties.

N. P. 1 oat variety is in demand in the area for fodder and seed production. Its demonstration was taken up in 1951-52. It has gained sufficient popularity by now, and it occupies one third of the area under oats in these 19 villages.

Gram N. P. 58 was taken up for demonstration in 1950-51. In the following year the farmers preserved their own seed and laid out saturated blocks of this variety. Its disease resistance impressed the cultivators, and now roughly over half the area under gram is occupied by it.

N. P. 29, a table variety of peas, was taken up for demonstration in 1951-52. In the first year only two farmers came forward to undertake its sowing on their land. Now there is a very keen demand for its seed, and the area under this variety is rapidly increasing under well irrigation. The two good qualities of this variety are (i) sweetness of the grain and (ii) the variety does not need any staking. It grows as the field pea. Farmers grow this variety primarily for the market for the sale of pods. Last year there was such a keen demand from the cultivators for the seed of this improved variety that we could meet only one tenth of it.

Saturation process of the new varieties of tomato, sugarcane, *bajra* etc., has been on the same pattern. It is expected that within another five years the entire area under these crops will be occupied by the improved varieties. It is the inherent suitability of the varieties which has impressed the farmers to adopt them readily in their normal cultivation.

Similarly, demands for fertilizers are going up year-by-year. It should be pointed out here that the Delhi State has a large population of cattle and consequently a high proportion of the area is dressed with F. Y. M. In spite of this the fertilizer consumption is annually increasing.

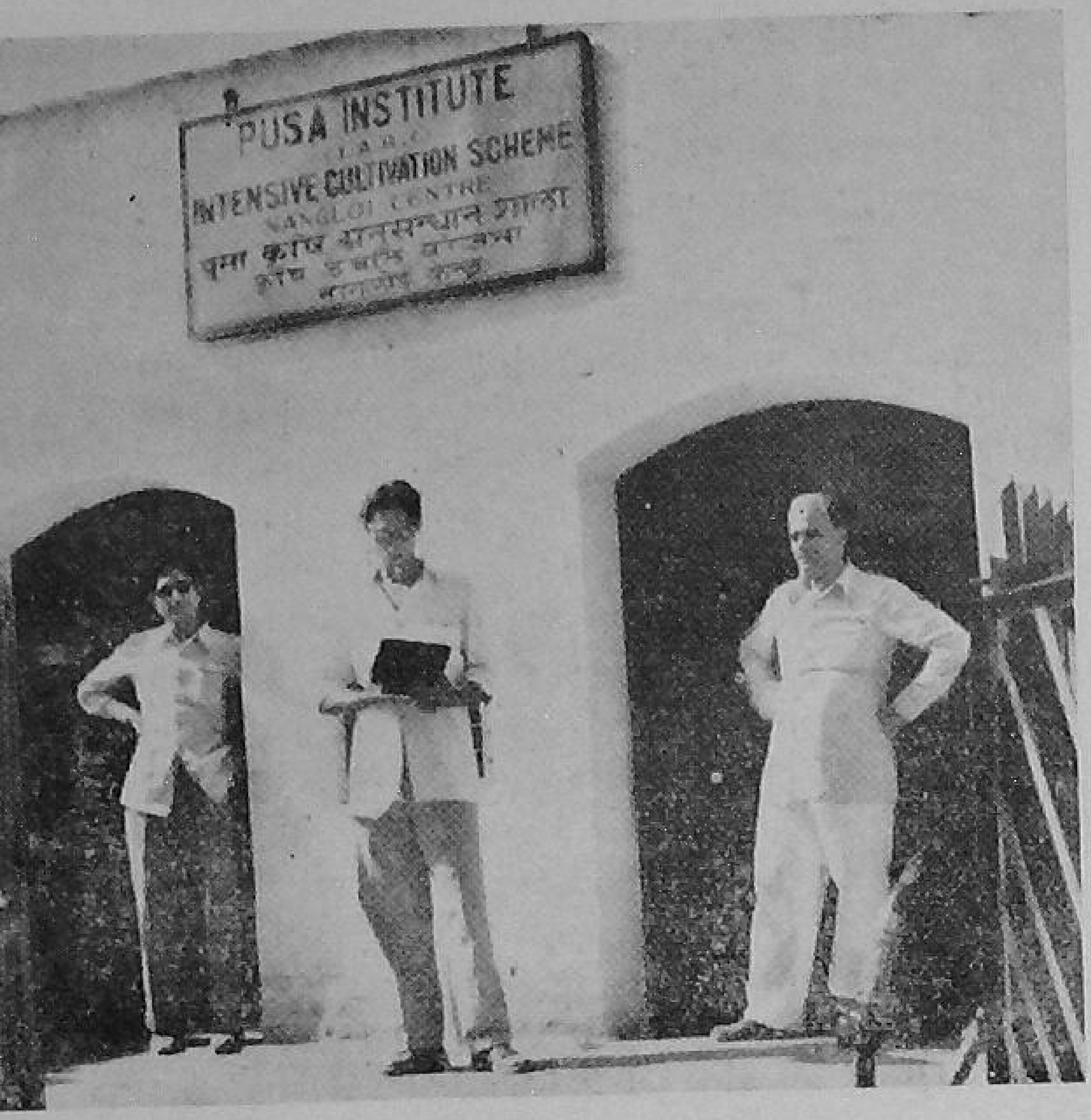
In order to saturate the area with new implements, a demonstration of the Olpad thresher for threshing wheat was taken up. The Olpad thresher is a labour-saving device. A pair of bullocks with the thresher can, in a day, do the work of six pairs of bullocks. Farmers are much impressed by the machine, and now almost each one of the 19 villages has one or two Olpad threshers. A blacksmith has set up a small workshop to manufacture these machines. He sold 12 Olpad threshers in the last threshing season. In fact, he is not able to meet the demand fully. The work undertaken by this blacksmith is guided by the Division of Agricultural Engineering of the Institute.

A large number of cultivators is taken round to see the working of a soil-turning plough. These are useful for turning-under the green manure crops. After their introduction the farmers have taken to the practice of green manuring, and the area under green manuring is going up every year.

COMMUNITY DEVELOPMENT

The Land Army units of the I. A. R. I. and the Central College of Agriculture have been taking an effective part in the Community Development programmes in these 19 villages. In 1951-52, the digging of compost pits was taken up in two villages. The system of conserving manure in pits has been adopted in other villages. However, there has

Though paddy is grown only on a limited scale in the area, yet wherever it is grown, the Japanese method of cultivating paddy is popularized



The headquarters of the scheme at Nangloi

been no success in our efforts to persuade the cultivators to take to shifting-latrines for the conservation of night soil in pits.

As a result of the combined efforts of the Land Army units and the villagers, tree planting has been going on year after year. Trees have been planted along the roads and in unculturable waste land. A majority of the trees planted are of *jaman*, *shisham*, *neem* and *bakain*. With the aid of the units of the Land Army, some of the cultivators have set up orchards of malta, *sangtra*, pomegranate, guava, *loquat* etc. These orchards are now in the bearing stage. As soon as the consolidation of land is completed, this activity is likely to increase.

The Land Army units and tractor equipments of the Institute were brought into use for the construction of the approach roads to the villages of Nilothi and Qammaruddin Nagar.

In these projects, some of the material was purchased on behalf of the Development Block, Bahadargarh. A large part of the labour force was provided by the villagers themselves, and equipment was loaned by the Delhi State. On both the sides of the road, Land Army units planted forest trees. Quite a high proportion of these trees has survived, and the trees are flourishing. In due course they will provide shade, fuel and leaf compost for the use of the farmers.

In 1954-55 the locust swarms attacked several villages of the Intensive Cultivation Scheme area and laid eggs in the fields. The Land Army units with the help of the equipment of the Institute and the villagers' co-operation fought the swarms. The hoppers were driven to the trenches where they were killed, and the area was rapidly cleared to prevent the emergence of larvae from the eggs. There was practically no damage done to the crops as a result of this co-operative campaign against the locusts.

PLANT PROTECTION

The plant protection measures undertaken in the area have prevented considerable loss of crops and vegetables. In 1950-51 there was a serious incidence of *kutra*. Crops on several acres were destroyed by the pest. This insect pest occurs at the onset of the rains. A cultural treatment to control it was evolved, which consisted of the stirring of the bunds and the uncultivated fields where *kutra* lays its eggs. When bunds were disturbed the egg massess were displaced. As such, they failed to hatch into larvae. Spraying caterpillars with 5 per cent B. H. C. proved very effective. Light traps were set up to trap the moths. In several villages, cultivators were saved from the feared losses from this pest.

Pyrilla is a serious pest of sugarcane in the area. Spraying with D. D. T. and B.H.C. was demonstrated in several fields. Now the cultivators have been convinced of its usefulness, who get their fields sprayed at their own cost. This has not only increased the yield of jaggery but improved the quality of juice so that jaggery setting is excellent.

Rats are a great nuisance in the fields as well as the houses of the cultivators. Baits and the use of cynogas have helped the farmers to reduce the damage from rats to their field crops. Several thousands of rat-holes were treated by the staff of the Entomology Division, year after year.

Tandu is a very serious disease of wheat. Almost ten to 15 per cent of the grain in some of the fields was affected by this. The floatation method of controlling the disease, standardized at the Institute, was demonstrated. There is a programme to eradicate this disease in stages under the land transformation scheme in which targets have been set to eliminate *tandu*.

Loose smut of wheat is another serious disease of the area. Loose smut also occurs in barley and oats. The loose smut of wheat can be controlled by a solar heat treatment. The solar heat treatment has been amply demonstrated to the villagers. One of the factors which has been responsible for the elimination of this disease is the introduction of the loose smut resistant varieties of crops. Variety N. P. 718 is far more smut resistant than the local. In 1952-53 foot-rot inflicted a considerable damage to the wheat crop in the area. Treatment with Agrosan G. N. was taken up on an extensive scale and this proved effective in reducing the incidence of this disease.

The newly set up orchards in the various villages are checked up frequently for disease, and boardeaux mixture, and other suitable fungicides are sprayed from time to time to keep the diseases under check.

LAND TRANSFORMATION PROGRAMME

The transformation of land is the most important problem demanding attention of agricultural workers in the field. Land transformation involves the nutritional cycle, the biological cycle and the hydrological cycle. The nutritional cycle demands that the nutrient status of the soils should be maintained at an optimum level. The crops produced from such lands should be able to keep the community in good health and also to maintain the animals in health and good production. In the nutritional cycle, it is imperative that soil conservation, manure conservation, and fertilizer application should prove very effective. If the erosion of the soil continues, it will impoverish the cultivator as a consequence of a low soil productivity resulting from it. The soil needs F. Y. M. and all the other waste products of the farm. The application of F. Y. M. supplemented with fertilizers return the nutrients to the soil in the same proportion in which the crops remove them. The soil cannot be kept in health unless the biological activity is maintained at an optimum level. The control of the biological cycle from the aspect of plant growth is as important as the maintenance of proper plant nutrients in the soil. The varieties of crops introduced should be resistant to diseases and pests, and proper plant protection measures should be taken in hand to check the invasion of pests and diseases.

The hydrological cycle in our country is defective because water received during the rainy season is not conserved. When the conservation of water is improper the water is not judiciously used by the farmers. It is a common knowledge that water logging under canal irrigation is frequent, because farmers apply excessive quantities of water for crop production.

In order that these three cycles are well maintained in the project area of the Intensive Cultivation Scheme, an integrated programme of land transformation was drawn up.

The Institute has been keeping ahead of the targets fixed in the integrated programme. In this integrated programme the farmer is the central figure, and a careful approach to the problem through him has been proved very effective. Without fuss or show, he has adopted new varieties of crops, taken to fertilizers, bought new machines to cultivate his land and to perform other agricultural operations with the maximum efficiency.

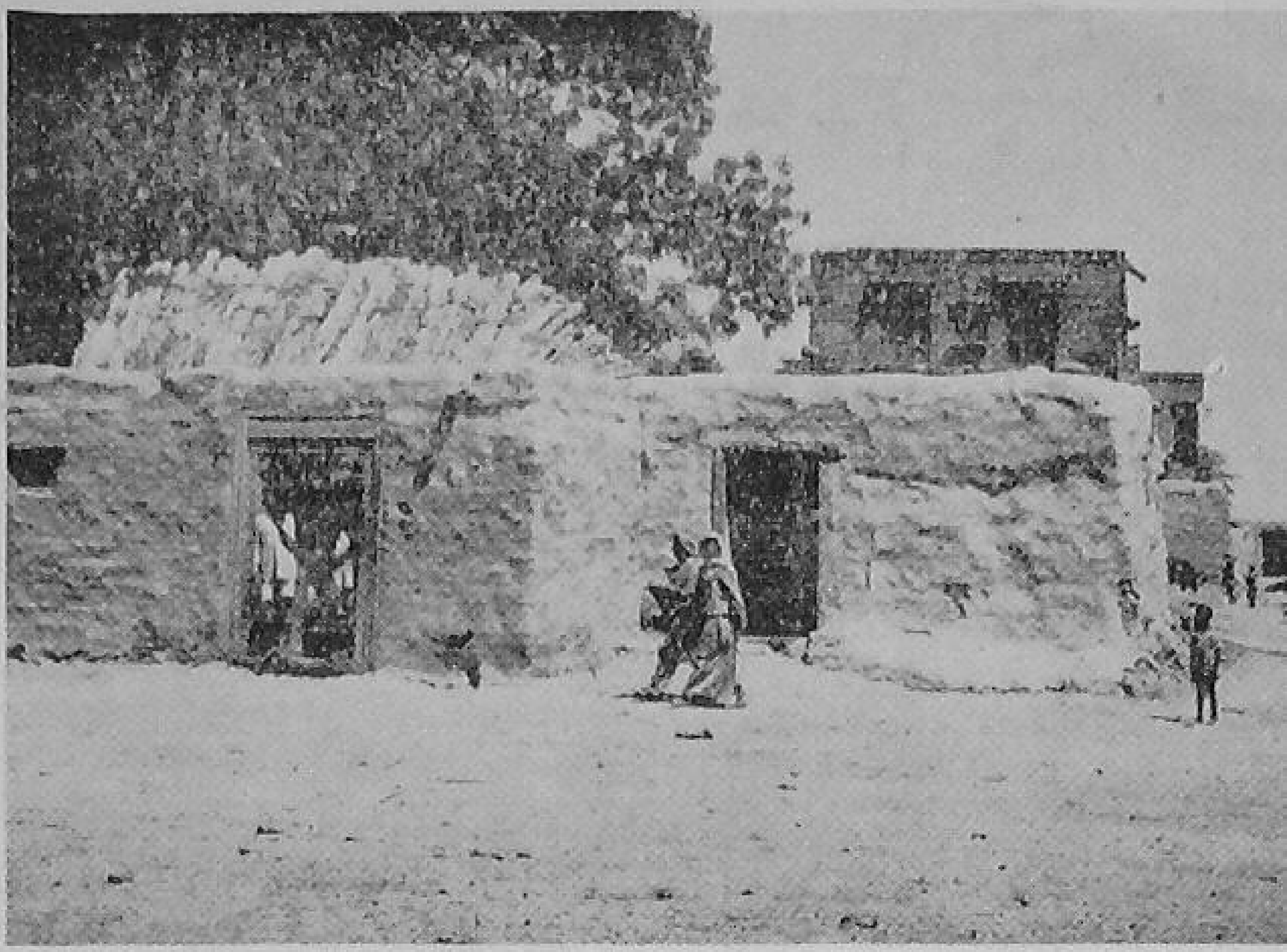
In the land transformation programme, soil survey has occupied an important position. The cultivated area of all the villages has been surveyed and mapped for its physical nature. These maps are now utilized in connection with the Soil Testing Service for the project area. A large number of soil samples have been analysed from various villages in the past one year, and plant food status reports have been drawn up for the information of the cultivators. In order to convince them of the usefulness of the soil tests, the recommended treatments are being demonstrated on selected fields of cultivators.

Side by side with the sutdy of the physical nature of the soils and the determination of their fertility, a survey of reclaimable saline area formed due to soil erosion has been completed. A demonstration programme has been drawn up to show to the farmers the methods of reclaiming salt lands by soil amendments and the adoption of proper crop rotations.

The soil conservation work has been taken up on sloping lands where sheet and rill erosion has been in progress for a number of years. Soil conservation bunds have been set up around a very large number of fields to conserve water and to stop erosion of the soil.

For the proper utilization of dung, six fuel gas plants have been set up in six villages at a cost of Rs. 200 each. During the summer season a cultivator's family is able to use the gas produced from dung for cooking for four or five hours daily. In the winter season, the availability of gas is low. Two tins of cow dung are enough to charge the gas plant every day for the production of gas. The Chemistry Division in co-operation with the Agricultural Engineering Division have perfected economy gas burners for the cooking of food from the gas evolved from these plants. There is a project to make perfect a gas lamp for lighting the houses of these cultivators.

Under the integrated plan, the Japanese method of paddy cultivation was demonstrated in the fields of cultivators where water supply was adequate for the production of paddy. In some of the plots, over 60 maunds of paddy per acre was produced. The area under the Japanese method is rapidly increasing in the villages where facilities for rice cultivation exist.



Qammaruddin Nagar, a typical village of the Intensive Cultivation Scheme area

With the funds placed by the Government of India at the disposal of the Director of the Institute, a Key Village Scheme and an Artificial Insemination Centre have been started in the project area. The scheme is a part of the land transformation drive for upgrading the livestock of the area. The cattle maintained in this area are of the Hariana and Murrah breed. The Murrah breed buffaloes are maintained for the production of milk which is sold in the city. Four Key Village Scheme Centres have been set up in the villages of Nangloi, Hastsal, Gheora and Tikri Kalan. One Hariana bull and one Murrah buffalo bull have been stationed in each of these villages for the natural service of animals. An Artificial Insemination Centre, which will soon start functioning, will be located in Nangloi. The stockmen have already taken up the castration of scrub bulls. The survey of livestock and their categorization have been completed. Advice on the economic feeding and management practices is being rendered to the cultivators, and the control of animal diseases has also been taken in hand.

Practical Extension Tips

—P. K. Anandani

A field worker should not only be faithful to his work but also to his mission. The moment he becomes doubtful of his mission it will be difficult for him to succeed. Besides, he should be patient, submissive and should work with a missionary spirit. Sometimes the villagers who are sentimental and uneducated and have remained in peculiar environment get irritated, and if the field worker loses patience or temper, he would not only face dejection but also lose the confidence of the villagers. Since he is a stranger to them, they may suspect him and may not be in a position to catch his point or feel the pulse of his mission so easily as he might be expecting of them.

It was a mid-summer day; I along with one of the Village Level Workers of our Block, Shri R. K. Pandey, was on my way back to the Headquarters. The Village Level Worker pointed out to me Pindra village which had not yet responded to the Block activities. On my asking the reasons, the Village Level Worker told me that the village was mostly inhabited by Thakurs and Brahamans, and any talk of *shramdan* or self help or improvement was to invite rebuffs and discourtesy. The villagers many a time insulted officers and workers. On this account, the village remained ignored. It was really something extraordinary, at least to me. Why should they not respond to improvement? Why should the field workers feel dejected? I collected data about the village from the V. L. W's register, and decided to tackle the village as an experimental measure.

When we reached the village, we stopped near the house of Shri Bal Mukand Brahman, where a few persons were playing cards. As I was a stranger to them, I approached them and offered my *Namaskars* with folded hands. There was no response and the villagers continued their play. I stood by their side watching the game. One of them, after a while, when the game was over, asked who I was. I introduced myself and said that I was meant for village service, and offered my help and advice in matters of agriculture, irrigation, health, sanitation, education and social uplift. One of them said that I seemed to be some officer as I was having a jeep. Intervening, I replied that the Jeep was meant to transport medicines, stores etc. in the far-flung villages which needed immediate relief.

A field worker should so conduct himself that he is not only not suspected but the villagers feel that he really means giving help and service.

They offered me a seat on the *chabootra* where they were playing. I started enquiring about their crops, health and sources of income. They complained that crop production was not good and that they were practically living from hand to mouth, and many in the village were not able to make both ends meet with the result that they had to secure some employment for a few months outside the village. I started enquiring in detail about the average production and the yield of various crops. I found that they were more interested in these matters, probably feeling that I could be of some help to them in removing their difficulties.

A field worker should try to find out the difficulties of the villagers both individually and generally. He should make a

note of them in a diary. If he is in a position to solve even a few of them, he can easily win the confidence of the villagers.

I took out my diary and started noting their problems. While I enquired about their health, I found that more than half of them were suffering from scabies. I asked the V. L. W. if he ever distributed medicines in the village. The reply was that the villagers were most un-co-operative. I thought it proper not to discuss further, and ran to bring the medicine chest from the jeep. The V. L. W. was entrusted with the distribution work. He noted the names of those who took the medicines. The village chowkidar was asked to inform the villagers by the beat of the drum that medicines were being distributed. In the meanwhile I started discussing the village problems with the villagers. After about an hour I was informed that nobody turned up to take the medicines. I found out that the villagers were under the impression that they would be charged for the medicines as their names were being written in the register.

It was our mistake that we had not informed the people that the medicines were free. The chowkidar was asked to go round the village again to inform the people that the medicines were free. A large number of villagers then turned up to take the medicines and soon our stock was exhausted. By this time a number of villagers gathered where we were sitting. We were discussing the problem of low crop yields. I noted in my note-book their difficulties and demands.

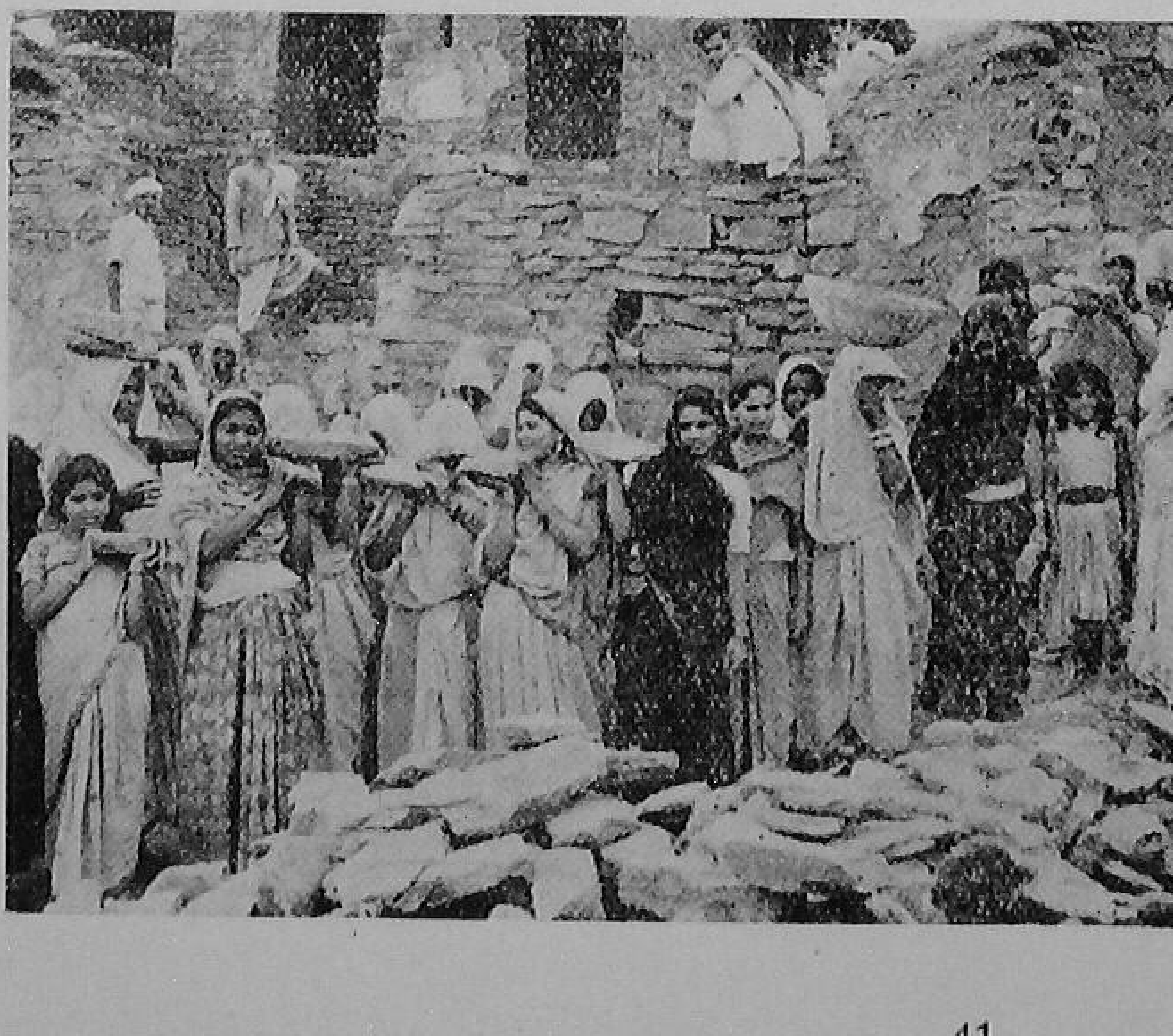
A field worker should concentrate his discussion on those important matters in which he feels the villagers are much interested. He should not side-track them and stress his own point, otherwise he will not be able to convince them.

Taccavi loan was their prime need. I promised to help them, and gave them application forms and also noted their names. One of those assembled there told me that they desired to call their village headman, Shri Chattar Pal Singh. I thought it proper to go myself to his house, as it would honour him and by this I could win him over.

Make it a point to meet people, big or small, in their houses rather than asking them to meet you. You should act as a missionary and not as an officer.

I went to his house and met him with due respects. I found that he was proud of my meeting him at his residence. He was informed of me already, but as he was a Thakur, he thought it below his dignity to come to me. I called him *Majale Raja*. I requested him to take trouble to join the village gathering. He asked me the purpose of the meeting. I replied that I wished to help the villagers to the best of my ability and resources. Since he was the headman of the village, I wished that he should be consulted. He retorted that we, being government servants, were there to exploit them and earn *bhatta* (travelling allowance). I told him that since I was new to their village, I should be heard. He refused to come out. I assured him that his sentiments were no doubt correct, but all the fingers of a hand were not equal. After great difficulty he agreed to attend the meeting.

The Thakur, Brahman and Harijan ladies, all joined hands and dismantled the old structure standing on the plot donated for the Mahila Bhawan and with it broke the barrier of untouchability



Do not ignore to call on the influential persons. Try to know their nicknames and call them by those names. They feel exalted if an officer calls them by their nicknames. Beware! do not get too friendly and call them by half or incomplete names.

In the meantime a huge gathering had collected. I, alongwith *Majale Raja*, reached the *chabootra* and asked the people to sit down. After introducing myself I explained to them my mission in the village and the spheres of activity in which I and my staff could help them. *Majale Raja* and a few others angrily told me that they no more wanted our sermons but concrete results. They came out with a few instances which had injured their feelings. One of the Block officials once visited this village and talked to them while sitting in the jeep and that too in an official tone. Thakurs who descended from royal families could not relish it. Naturally they cared for nobody. They were promised a few improvements in respect of wells, but nothing was done. The Village Level Worker visited this village not as a *sevak* but as a supervisor, to their complete disgust. The problem was how to tackle them and take them into confidence.

It should be borne in mind that the poor villagers have been continuously exploited in the past and as such one cannot infuse confidence in them overnight. It would naturally take some time. If you hurry up the matters, you are sure to lose ground and face failure.

I admitted that their apprehensions might be true but there was nothing bad in a further trial. They all heckled me saying that we enjoyed cars and made out *bhatta* and did nothing. I thereupon appealed to them that we were youngsters and as such we were liable to commit mistakes. It was expected of them to correct us and excuse us. After all, community development programme was a new thing in India, and till it gained momentum, there were likely to be some shortcomings. One out of the audience complained of rat menace. Immediately I sent for the medicine and got it distributed. By these acts I felt I was nearing their hearts. But all the same I was still doubtful of their reaction. Finding me sitting with them with equality, hearing their hot words patiently and cheerfully, and replying them in a brotherly spirit, I in my mind felt some sort of appreciation on their part.

A worker should be cheerful and should not lose temper. He should face the realities and admit defects wholeheartedly.

I later introduced the idea of establishment of a community centre with their participation. Although they appreciated the idea, they refused to contribute a single pie, saying that they paid all the taxes and it was the duty of the Government to provide amenities. Since the reactionary forces were at work, I had to cut short saying that we would sit together and find out ways and means to have one community centre constructed. I showed utmost respect to all and talked to them like a friend. Alongwith them I went round the village to see the possibilities of any improvement. I asked them to give their suggestions. They suggested improvement of lanes, a bathing *ghat* for ladies by the river side, and repairs of wells. I visited all *mohallas* including the Harijan *basti*. The Harijans, I was told, were much harassed by Thakurs and Pandits. I thought it better to meet them privately.

Field workers should make it a point to meet all sections of the village and solicit their co-operation. There should be no distinction at all.

At my request, the villagers organized the singing of *ramdhun* and folk songs. More than 500 persons including ladies attended. It was the first response from such a reactionary village. During intervals I explained to them the gist of the Five Year Plan and the way how the Government intended to help villagers to raise their income and standard of living. All this was under the presidentship of *Majale Raja*.

Never try to assume any superiority in the village. Allow the villagers to choose their leader for the village functions and work with him. Of course, you should give your suggestions.

During our discussions, the question of establishing a community centre again cropped up. I was now in a fix. I could not commit any contribution from the Block funds unless the villagers were prepared to contribute an equal amount. I asked them where they wanted to construct the centre. The reply came that there was no Government land nearabout. I made an impassioned appeal to them to rise to the occasion and spare a plot for their own benefit. I told them that a man is born not only to earn but to serve as well. All that he leaves behind after death is his name and nothing else. There were scores of instances when people had given liberal donations for the sake of the community, and their names became immortal.

Immediately there sprang up a lean and thin man, Shri Ram Dayal Kachhi, who offered a precious piece of land for the purpose. My joy knew no bounds. *Majale Raja* told me that the market value of the land was not less than Rs. 1000. I congratulated Shri Ram Dayal for the valuable donation. With this, my problem of collecting donations was also solved. I immediately announced a Government grant of Rs. 2000 for the centre. Every villager was grateful to Shri Ram Dayal Kacchi.

At this stage, I heard a few elderly ladies sitting nearby asking one another if there was any *yojna* of women welfare. I consulted *Majale Raja* if I should explain to women the purpose of welfare activities. I got a retort "We cannot allow our ladies to be so infrequent, as we observe *parda* and hail from *raj gharana*". I thought it better to keep quiet, as the time was not yet ripe to discuss the problem.

Try to read the atmosphere and never try to overlook or bypass villagers' sentiments.

The meeting continued till late in the night, with a major discussion on improvement of agriculture. I promised for the demonstration of new agricultural implements, distribution of fertilizers, green manure, vegetable and grass seeds, distribution of fruit plants and improved seed and so on. I noted their requirements as well.

The foundation stone of the Mahila Bhawan being laid

Make it a point to hold village meetings at night with some cultural and religious programmes, as the cultivators who are busy in fields during the day are free at night.

Prizes were distributed to the singers through *Majale Raja*. At night while we started cooking our meals, villagers offered *atta*, *ghee* and milk. But it was very courteously refused. This was felt by them. After great difficulty, we had to accept some milk.

Never burden the villagers for your meals. If you frequently accept them, it would not only bring you bad reputation, but you would also be unpopular and would command no respect. Some villagers feel embarrassed if their hospitality is refused, but even in such a case, the hospitality should be reciprocated in some or another form, and the villagers should not be allowed to feel or suspect that the worker is greedy.

Next morning we again met the villagers. *Majale Raja* extended us invitation to participate in the marriage of his son, which was to be celebrated after five days. It was accepted and we returned to the headquarters. I immediately sent back

the V. L. W. with medicines, insecticides and agricultural implements to keep up my promises. Moreover if there was no follow-up programme, the enthusiasm would have got a relapse.

Any promise or commitment should be made only after careful consideration. Once you promise a thing you must always honour it.

I explained the situation in the village to our Lady Social Education Organizer. We decided to tackle the problem on the home front also. Although the task of the Lady Social Education Organizer seemed to be a herculean one, all the same she promised that she would work with determination. We decided to visit the village on the marriage day. I asked the Village Level Worker to be in constant touch with the villagers, which he did.

On the marriage day, I along with the Lady Social Education Organizer left for Pindra. On reaching there, the Lady Social Education Organizer took the opportunity to mix with the ladies and I, on my part, acquainted myself with the other guests. Soon after we were all called inside the court yard where a village Brahman started conducting ceremonial proceedings. The L. S. E. O. took no time in moving about amongst the ladies. She was perfectly at ease as if it were her parents' house. Most of the ladies were surprised to see an educated young lady briskly moving about and helping them in the marriage arrangements. Soon I found the L. S. E. O. encircled by the ladies. I could hear their discussions. A barrage of questions one after another started from the ladies, and the L. S. E. O. very calmly was replying to each of them in succession. With her introduction, she very wisely disclosed her mission as a participant in the marriage, as otherwise she would have been suspected to have come with some end in view to keep her pay and allowances intact.

It is a wise thing to start a topic in such a way that the work one desires to be done is initiated by the villagers themselves.

From the nearby kitchen, smoke was coming out engulfing the room. The L. S. E. O. took the opportunity to take the ladies to the kitchen and explain to them the benefits of the new type of smokeless kitchen and promised to construct such kitchens for those who collected material for it. This offer was responded to by many of them. Later she sat by the kitchen side and started preparing a few of her own dishes. The village women were delighted and impressed with the wonderful dishes the L. S. E. O. perpared. She soon became the near and dear to one and all, not as a guest but as a member of the family.

She did not take her meals till the last guest had finished his food. While taking meals, she very conveniently introduced the matter of starting a *Mahila Mandal* in Pindra where the village women would be taught tailoring, embroidery, cutting, doll making and so on. The idea was appreciated by every one. There sprang up a sudden question as to what they would have to pay? The L. S. E. O. explained there was no need to pay anything but they had to provide accommodation for the *Mandal*. All the material would be provided by the Block. One of the ladies asked if the Government could provide funds for the new construction. The L. S. E. O. told them that if they offered some sort of manual labour by way of *shramdan*, funds could be provided. The ladies protested saying that it was the *chamar* and *adivasi* ladies who worked, not the Thakur and Brahman ladies. Tactfully, the L. S. E. O. replied that since it was their demand, and that they wanted the *Mahila Bhawan*, and those who did not want it would not help them. Since the *Bhawan* would be their own, there was nothing below their dignity and prestige to help its construction. They should work as if they worked in their own house. To this there was no response. She thought the idea of *shramdan* was not appreciated by them. As such, she did not pursue the matter further. She was silent for a while. An idea came to her that if a plot was donated by some one, as in the case of the community centre, the construction of

Mahila Bhawan would be possible. She asked them immediately if they had any plot in view for that purpose.

One of the elderly ladies replied that one big plot in the heart of the village, belonging to Thakur Raghuvansh Pratap Singh was lying unused. Another lady said that it was impossible to get that plot, as the owner was going to construct a house for himself on that plot. He, under no circumstances, would spare it. The Lady Social Education Organizer came out and consulted me if I could tackle this problem specially when Thakur Sahib too was present. I told her that it would be better if she addressed the gathering. She agreed. I consulted *Majale Raja* and requested him to give some time to the L. S. E. O. to speak on the welfare problems of ladies. He objected and protested. I talked to his elder brother, Shri Raghuvansh Pratap Singh, who was also the owner of the plot in question. He is an influential man of progressive views and his son is a Social Education Orgainzer. He advised *Majale Raja* that they should move with the times. Ladies needed uplift and there was nothing to fear, specially when an L. S. E. O. would work among women and that the instructress would be a lady. *Majale Raja* agreed and the L. S. E. O addressed the gathering and appealed for the donation of a plot. There was no response from the audience. Finding no way out, I approached Thakur Raghuvansh Pratap Singh. He first showed his inability to spare his plot. But when I told him that it would earn him a good name specially when guests from all parts had assembled for the marriage, he agreed. I was filled with joy. Thakursahib announced his donation of the plot.

Occasions like festivals and marriages should not be missed by a field worker. Things which he feels impossible could be achieved on these occasions, as the people respond not only from the heart of their hearts, but to maintain their name and prestige.

My anxiety was over but that of the L. S. E. O. grew in volumes. She had to try to infuse the spirit in the ladies and prepare them for *shramdan*. There was the question of dismantling a structure already standing on the land. This was not an easy job. Fortunately Rajkumari Laxmi Devi, who was associated with women's movement, was there. She commands respect in the village and had come to participate in the marriage. She exhorted the ladies to give *shramdan* and they decided to start the work the next morning. The L. S. E. O. informed me about the bold decision the ladies had taken, and it gave me immense pleasure. But at the same time I was doubtful if the Thakurs and Pandits would permit their ladies to give *shramdan*. Anyway we had to do our best and leave the rest to God. Later, the L. S. E. O. participated in the ladies' cultural programme and every one of us was astonished to see that she was leading the chorus while singing folk songs.

Next morning I and the L. S. E. O. went round the village. It was a news to many of the village ladies, who were absent on the previous night. There was a partial response. Few ladies collected. But we did not lose courage and expected more. Finding this new drive, many of the village ladies collected as silent spectators as the news spread in the village. The Thakur and Brahaman ladies, even with their veils, started offering *shramdan*. Few male members, who had collected there to see their ladies working, offered help, but

The hot sun did not deter children who came forward to help

it was refused. The ladies had decided to construct their own *Bhawan* with their own labour and a challenge was thrown to the males to construct their community centre earlier. The work continued under the hot sun.

About 4 P. M. on the same day, about 30 more ladies came for work. Shrimati Chander Kali, wife of Shri Keshri Nandan Dwivedi, a V. L. W. of Panna Block, was leading them. As there were no sufficient number of digging implements for all of them, I rushed the V. L. W. to the Block headquarters. He fetched some inplements. The work continued till sunset. We were now sure that the movement had caught fire and that we had only to keep it burning. The L. S. E. O. organized a cultural programme amongst ladies at night, which was attended by 80 per cent of the village women. All promised to give *shramdan* the next day.

Cultural programmes at night give life to the community; they should be treated as an essential part of the movement.

Next day was a red letter day in the history of Pindra. A large number of ladies and children gathered and took to the work, and the huge structure standing on the plot was dismantled in no time. The stone collection was so high that it formed a gigantic hillock nearby. The old structure was removed and every one was in a hurry to lay the foundation stone. We decided to do it the next day. The ladies were in a hurry, as the work of the community centre too was started.

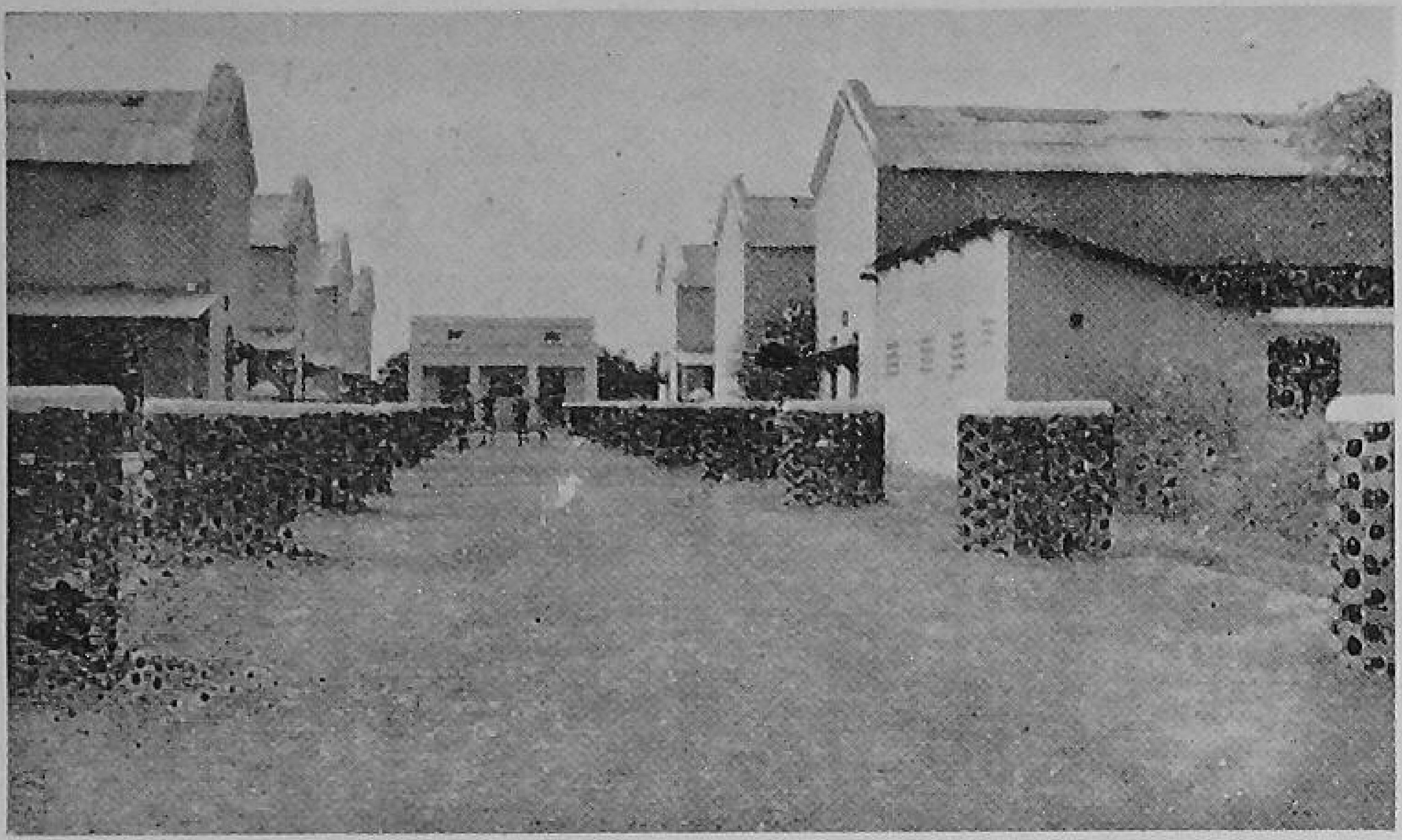
The same day we received marriage invitation from the Harijans. We both, myself and the L. S. E. O., attended. The Harijans were glad to see us. I chatted with them, noted their requirements while the L. S. E. O. joined the Harijan ladies in singing marriage songs. Her charm and affection attracted them too. They too promised to work at night on the *Mahila Bhawan* if gas-lanterns were provided. They earned their livlihood during the day time by plucking *tendu* leaves for the contractor and spared the night time for the work. We agreed and returned. The news was conveyed to the ladies of the Thakurs and Brahmans. They too promised to work with the Harijan ladies at night. At night all worked together and the barrier of untouchability too was removed quite easily. This we never anticipated. Next day, to our surprise we found the Harijan ladies assembled for work in the morning. They had decided to forego a day's wages. This was a great sacrifice indeed. In spite of our repeated requests to go back and earn their wages, they refused. They worked till noon, and Rajkumari Laxmi Devi laid the foundation stone of the *Mahila Bhawan*. We succeeded in removing the *parda* system too. The next day the ladies gave final touches to the plot and it was ready for construction. The male population also did not lag behind. The work of building the community centre continued day and night. The village life was buzzing like a bee-hive.

The matter was conveyed to the Government of Madhya Pradesh. A committee of officials and non-officials was appointed to assess the *shramdan* work. The committee visited the village.

The village got second prize from the Government of Madhya Pradesh and a sum of Rs. 500/- in cash which was partly utilized for the purchase of one radio set for the *Mahila Bhawan* and the balance has been utilized for the construction.

Today the village is having a school, a community centre, a *Mahila Bhwan*, *pakka* village lanes, an *akhara* and a sanitary well.

Marching Ahead



The campus of the Centre. The assembly hall in the background was built by the trainees who gave *Shramdan* for the work

CHIRGAON

TRAINING-CUM-EXTENSION PROJECT

Bundelkhand, famous for its cool breezy summer nights is equally well known for its hot summer days. The temperature often crosses the 115°F mark during the day time.

But at two o'clock, in an early July noon, Mata Prasad and Baldev Prasad, trainees of the Chirgaon Training-cum-Extension Project, were not scared of the blazing sun when they were taking levels of a farmer's field for contour bunding it. They were worried as the job had to be finished before the onset of the monsoons.

Other trainees of the Centre were also working in villages in the same scorching heat, propagating improved methods of cultivation for the approaching *kharif* season and arranging the supply of feritlizers and improved seed.

"May it be extremely hot or raining hard, our trainees never miss their work in the villages or the Centre", the Principal of the Chirgaon Training - cum - Extension Project centre told me "Our trainees are the *Gram Sevaks* of tomorrow, the mainstays of the extension programme, and from right now we try to inculcate in them the spirit of service and a sense of discipline. It will be our failure if they are unsuccessful as *Gram Sevaks*." He added.

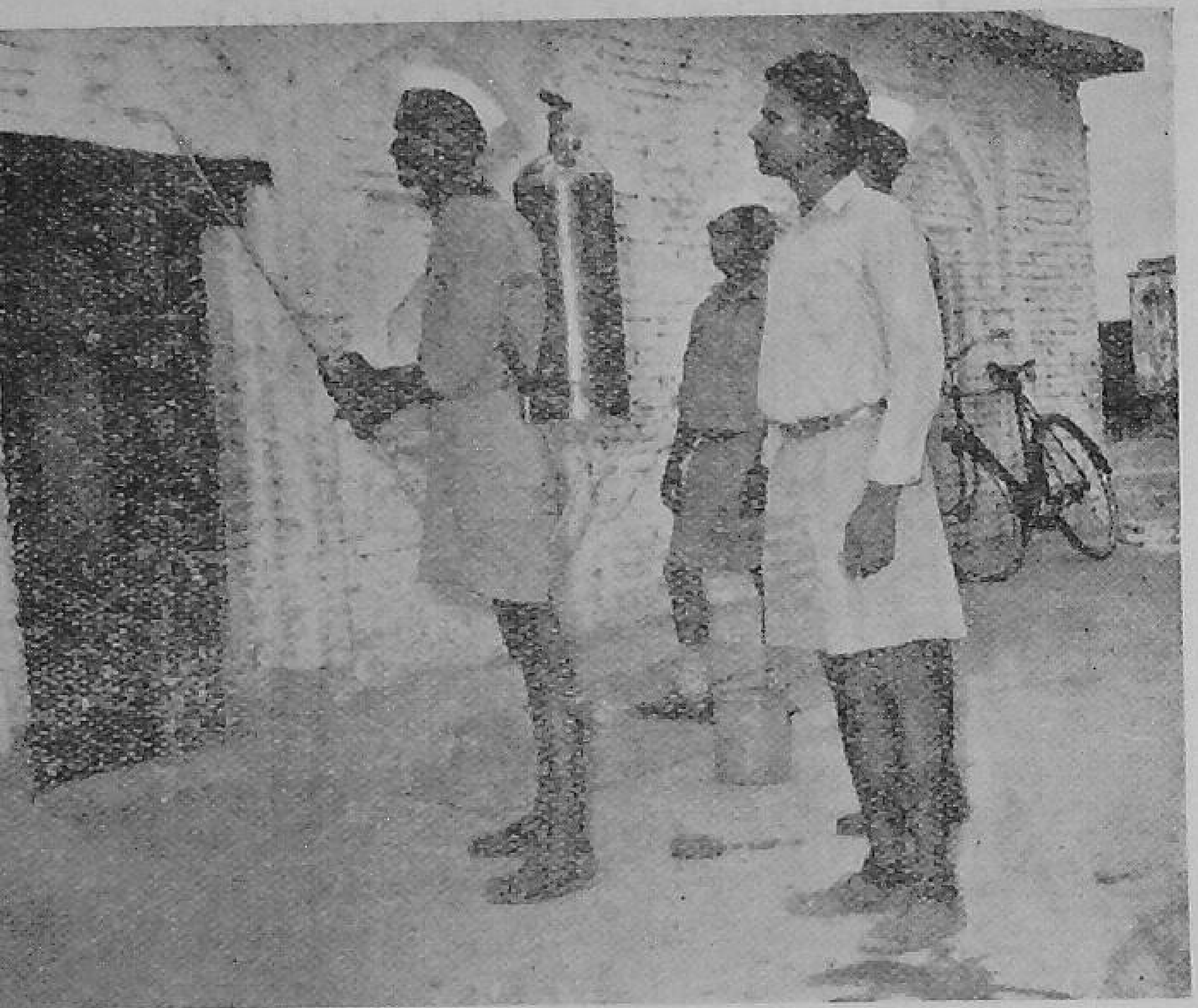
The Chirgaon Training - cum - Extension Project which trains *Gram Sevaks* for the Bundelkhand area of Uttar Pradesh is located on the former Tobacco Research Station at Chirgaon in Jhansi district. In 1948 an agricultural school was started here and the Training - cum - Extension Project was inaugurated in 1952. So far 327 *Gram Sevaks* and a few group level workers have completed training from this institution. To provide better village apprenticeship programme to the trainees, a Development Block with the Principal as its officer-in-charge was attached to the institution in 1954. Though all the 118 villages of the Block are used for training purposes, 27 villages near the Centre are earmarked as a training zone where the trainees mainly work.

INTEGRATED COURSE

"We have two courses here at present", the Principal told me, and "a two-year diploma course and the 18-month *Gram Sevak's* training course. Since the diploma course has extension as a subject and village apprenticeship programme also, but for a little extra emphasis on the subject of agriculture, both the courses are practically the same.

"As the *Gram Sevaks'* course is an integrated one with no differentiation between the basic and extension stages we can maintain very good continuity of the subjects for all the 18 months. We can very easily spare three months for on-the-job training when the trainees work as apprentice V. L. Ws. The boys get about 18 months' experience in village work, as it forms a part of the regular training programme. The best judge of a V. L. W. is the cultivator. Since our boys come in contact with them for 18 months, they get enough opportunities to find out their mistakes and rectify them. We in the Centre get enough time to mould the boys to be fit *Gram Sevaks*. Another advantage of the integrated course is that the trainees get three seasons to study various crops in the same institution".

The trainees regularly undertake the spraying of the village houses with D.D.T.



The *Gram Sevak* trainees working in the sugarcane plot of the Centre's farm

PERIODICAL TESTS

"What special measures do you take to ensure that a trainee is making proper progress?" I asked the Principal.

"We regularly have periodical tests and six-monthly examinations in all the subjects, and the marks are counted towards the final evaluation. So also we allot marks on the daily practical work of the trainees, which also count towards the final evaluation. If a trainee is not making proper progress it is recorded in his mark sheet and we give special attention to him. We allot marks for discipline and village work and practically for every activity of the trainee on the campus. We can thus judge him very critically. Every instructor is given responsibility for the progress of a group of trainees. He submits a report on each individual trainee every quarter about his general performance, his aptitude, his ability to apply ideas, his grasp of problems, his qualities of leadership etc. If a trainee does not come up to the standard, we warn him and see that he puts in his best efforts. We strive hard to send out as perfect a *Gram Sevak* as possible".

The *Gram Sevak* trainees of Chirgaon have practicals every day for two hours, either on the 30-acre farm or the $2\frac{1}{2}$-acre orchard or in the dairy of the Centre. They have village work every alternate evening, and stay in the villages once a week.

"Our training programme is so adjusted," the Principal told me, "that the trainee learns in the theory classes what he actually works within the practical hours. We teach cultivation of the *kharif* crops in the *kharif* season and the *rabi* crops in the *rabi* season, when they are actually standing on the Centre's farm or in the village fields."

PROBLEMS OF AGRICULTURE

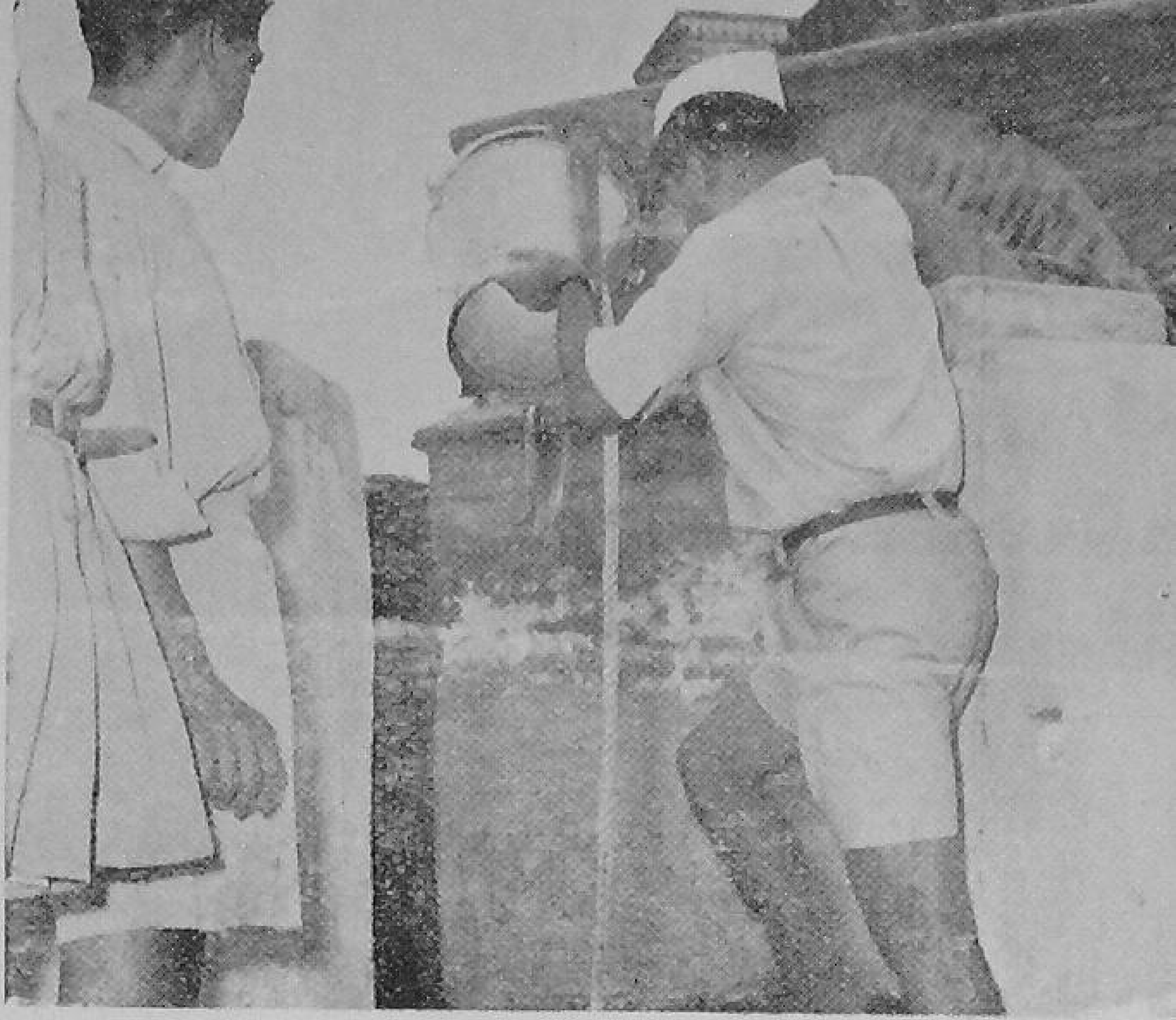
Special emphasis is given in the training programme on the major problems of the region: soil erosion and low crop production.

Jowar and *arhar* in *kharif*, and wheat and gram in *rabi* are the major crops of the area. Till recently the farmers used to obtain poor yields of these crops. They were able to reap only six to eight maunds of *jowar* and wheat per acre. The majority of the cultivators of the area had not even seen ammonium sulphate a few years ago. Today artificial fertilizers are extremely popular in the area, and the credit for this can be rightly claimed by the past and present trainees of Chirgaon. Same is the case of improved seeds and improved cultivation practices. The trainees, by holding meetings and conducting demonstrations on cultivators' fields have popularized these. In many cases the crop yields have gone up by 25 to 50 per cent.

Due to the peculiar soil and climatic conditions farmers of the area never attempted raising fruits and vegetables on a large scale. The trainees of Chirgaon were able to convince the villagers that orchards could be successfully raised, and today as many as twenty orchards of *papaya*, citrus, guava, and even mango in some cases, have been successfully established. Vegetables, particularly potato, which were a scarce commodity only a few years ago, are abundantly available today in the market.

Similarly, mainly through the efforts of the trainees, 28 irrigation wells, practically the only source of irrigation in the area, were newly constructed, 18 deep well borings executed and 23 pumping sets installed in the training zone.

The trainees have also persuaded the villagers to have sanitary wells in every village for obtaining drinking-water. The trainees help the villagers in spraying their homes with DDT, constructing soak-pits, vaccination etc. They also help the authorities in taking measures against the outbreak of cattle diseases. In the month of May this year alone, the trainees inoculated 23,000 animals.



Trainees disinfecting a village well with the potassium permangnate solution

SOIL EROSION

Soil erosion is a major problem of the area. Due to peculiar topography of the land, much of the valuable top soil is washed off every year. Small *nallahs* exist everywhere and, during the rainy season, the soil is denuded and the *nallahs* develop into ravines.

Special emphasis is laid on the soil erosion control measures in the training programme. The trainees actually take part in bunding fields, plugging *nallahs*, in contour planting and afforestation, and while learning the subject, they educate the farmers also. 2,400 acres have so far been contour bunded in the training zone. 20 check bunds for plugging *nallahs* have been constructed, more than 35 pucca water escapes built, and about nine acres afforested in the training zone, all through the initiative of the Centre.

When the monsoons came to Chirgaon after the first week of July, Mata Prasad and Baldev Prasad were happy. The bund on the cultivators' field was already laid, and they are sure that this year the valuable top soil would be preserved, for there would not be any surface run-off and the cultivators would reap a bumper harvest. – *S.G.R.*

The College of Agriculture, Anand, where the Extension Training Centre is located

ANAND EXTENSION TRAINING CENTRE

The much sought after integration of teaching, research and extension exists today in the Institute of Agriculture, Anand, which is a private institution conducting research on the agricultural problems of the Gujrat region and which also runs an agricultural school, an agricultural college and an extension training centre at Anand.

The Institute has so far distributed tons of improved seed evolved and multiplied at the Institute's farm; has supplied more than 400 pedigree bulls bred at the Institute's cattle breeding station; has analyzed thousands of soil samples for the cultivators of the area, besides publishing many leaflets and pamphlets. The Anand Extension Training Centre has played a prominent role in all these activities.

One of the first five pilot extension training projects to be established in India in 1952, the Anand Extension Training Centre was merged with the Institute in 1955 and is now located in the Institute's College of Agriculture.

Being an integrated part of the Institute of Agriculture, the Anand Extension Training Centre has all the facilities a college should have. Laboratories of the college are utilized for conducting practicals for the *Gram Sevak* trainees. The well-appointed museums of the different sections of the college provide an excellent teaching aid to the trainees.

The six-hundred-acre farm of the Institute with its various research activities in agriculture, horticulture and allied subjects is made full use of by the trainees. A 135-acre section of the farm is specially reserved for training purposes.

The dairying industry has great importance in the area. Milk collected from the villages round about Anand is sent daily to Bombay by the Kaira District Co-operative Milk Producers' Union. Milk co-operative societies exist practically in every village. As such, great stress is laid on the teaching of the subjects of animal husbandry and veterinary in the *Gram Sevak's* training programme. Full use in this respect is made of the Institute of animal genetics, animal nutrition and dairy science, which are parts of the Institute of Agriculture.

An artificial insemination centre located at the Institute provides similar opportunities.

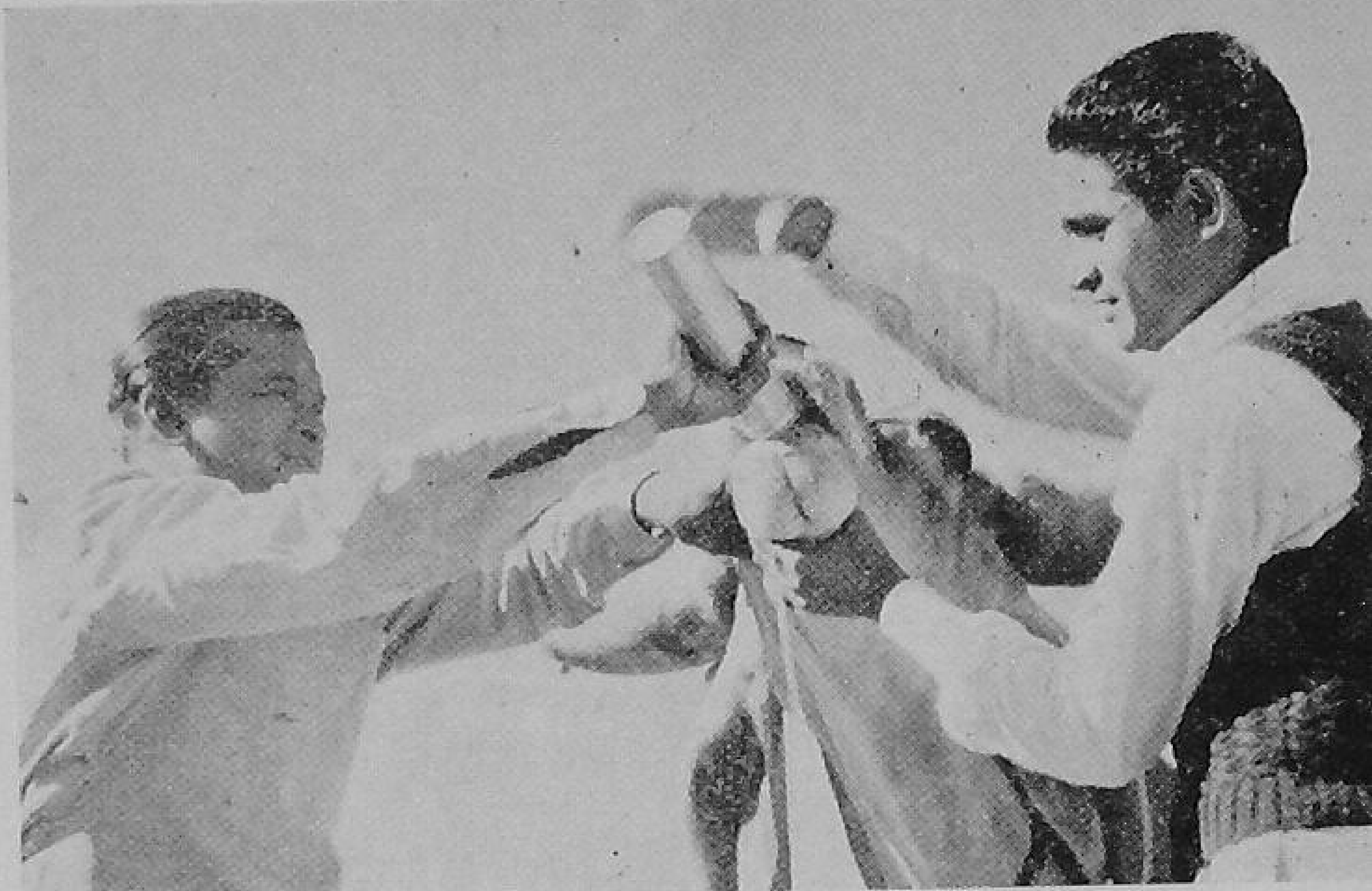
The services of all the specialists working in the Institute are utilized for training *Gram Sevaks*. These specialists and research workers tell the *Gram Sevak* trainees about the latest research activities and their results etc. Extension is a two-way channel, and the problems faced by the cultivators of the

villages, where the *Gram Sevak* trainees work, are conveyed to the research workers in the Institute by the trainees. In this respect the Institute of Agriculture is immensely benifited by the Extension Training Centre.

The courses conducted here consist of a 12-month course for the *Gram Sevak* trainees drawn from the co-operative and the revenue departments, and a six-month course for the *Gram Sevak* trainees drawn from the agricultural department. From the next batch onwards the *Gram Sevak* trainees, who have undergone training in a basic agricultural school, will be further trained for six months in extension methods at the Centre.

During their village stay the trainees distribute improved seed , spray insecticides, and distribute them, repair old manure-pits and construct new ones, distribute manures and fertilizers and agricultural implements, conduct field demonstrations, clean animal byers and treat animals against diseases, help organizing the adult education classes, organize the *yuvak* and *khedut mandals*, write wall papers, etc. In the field of co-operation, they help in organizing the milk co-operatives, irrigation societies, multipurpose societies. and help strengthen the membership of the existing ones. The trainees carry out public health programmes in the villages, like the disinfection of wells,

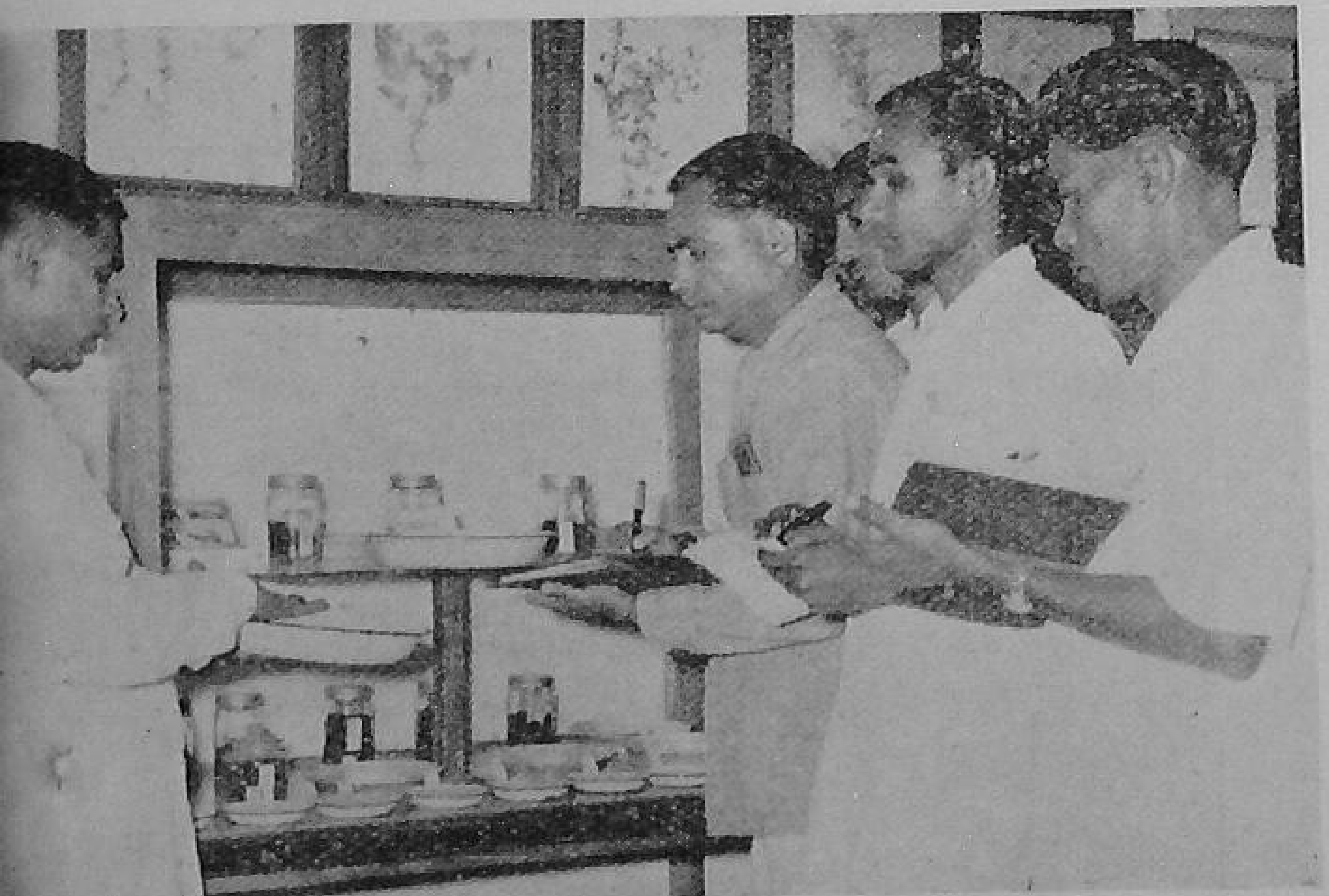
Gram Sevak trainees learn milk separation (above)



Administration of elementary veterinary medicines is taught to the trainees

bore-hole and trench latrines, soak-pits, smokeless *choollhas* etc. Similarly they organize exhibitions, *shram yajnas* etc. in the villages.

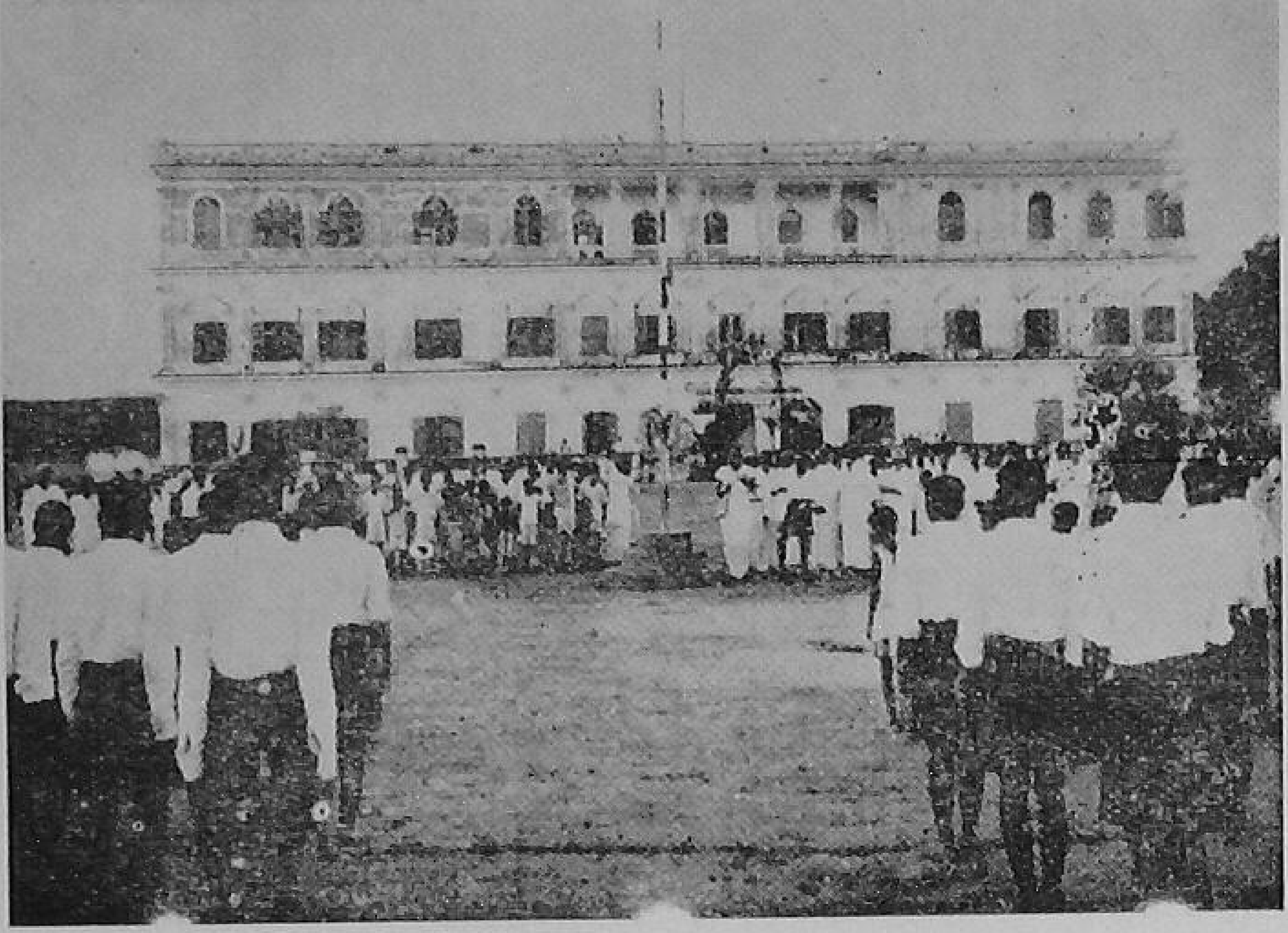
The museums of the College of Agriculture are made full use of by the trainees. Here an instructor is seen explaining the exhibits of the botany museum to the trainees



The trainees work in the villages in groups of four, for one week in every month.

The *Gram Sevak* trainees take part along with the students of the Agricultural College and the Agricultural School in celebrating national days and in other cultural activities.

The *Gram Sevak* trainees are taken on tour to places of educational interest like the special multi-purpose block, Khed-Brahma, the Soil Conservation Research Station, Vasad, the dairy of the Kaira District Co-operative Milk Producers Union etc.



Morning prayers. In the background is the old palace of the Jagirdar of Arni, which now houses the Training Centre

Sathivizianagaram Rural Extension Training Centre

—E. G. Sivaswamy

The silent revolution which is going on in the country and which has already replaced the feudal power by a welfare State is well reflected in the Sathivizianagaram Rural Extension Training Centre which is housed in 'Sri Vilas', former residence of the Jagirdar of Arni.

Originally started as a basic agricultural school in 1956 and then converted into an integrated training institution, the Sathivizianagaram Rural Extension Training Centre has already sent out its first batch of *Gram Sevaks* after an 18-month training programme.

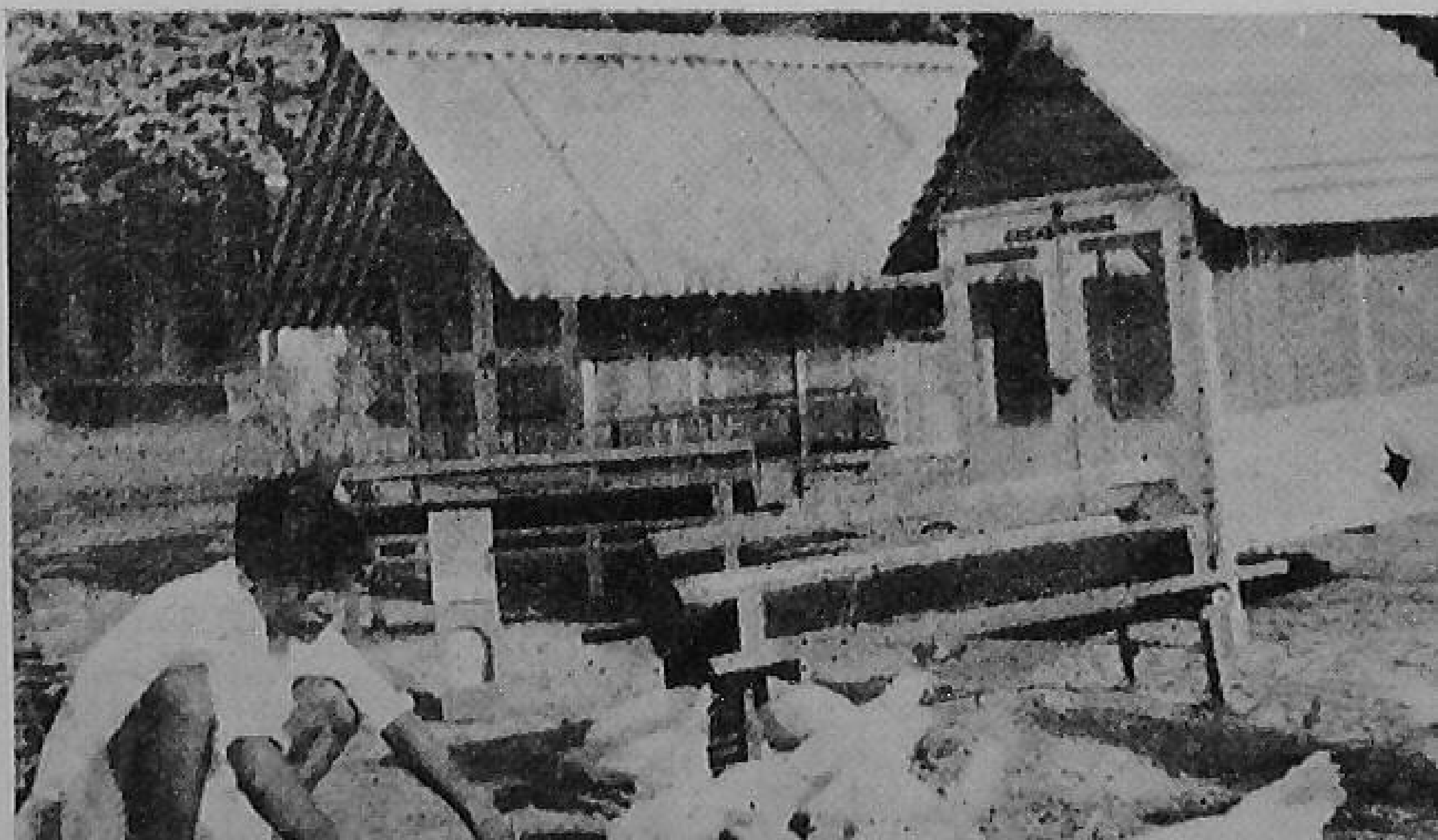
The buildings were in a neglected state when the Centre authorities took them over. Wild bushes had sprung up on the premises, wild animals had made the buildings their abode. It was a stupendous task the trainees faced, and by ceaseless and untiring efforts they have changed the entire complexion of the campus within no time.

A circular park with lawns, and a circular metalled road all-round has been made by the trainees, and a garden has been developed by them, which also serves as a practical training-ground in floriculture.

An orchard is being established around the buildings. Malta lemons have been planted and fruit plants like the mango, *sathugudi*, *sapota*, pomegranate etc. will be planted in the rainy season. A fruit nursery is also being established.

The Centre has a 26-acre farm with three large-sized irrigation wells. Two more wells are being sunk to augment the water supply. The cropping scheme of the farm includes wet, garden and dry crops normally grown in the locality. The entire farm is cultivated by the trainees themselves. The practicals in the farm are on a job assignment basis. Every trainee is made to learn the jobs by working on them for a prescribed number of periods. This enables him to attain a minimum skill comparable with that of a medium-sized farmer. The jobs are like the using of iron ploughs, bund formers, mechanical seed drills, harrows, ridge ploughs, victory ploughs, buckscrapers, intercultivating implements, sprayers and dusters, the pretreatment of seeds, preparation of compost,

A trainee feeding poultry



Intercultivating paddy grown by the Japanese method

fertilizer applications etc. The implement-shed of the Centre houses all improved agricultural implements and horticultural tools suitable for all areas of the Madras State. By the end of his training period every trainee learns cultivation of a variety of crops under varying conditions and seasons.

A poultry farm with the White Leg Horn and Rhode Island Red birds and with the modern all-metal poultry and chicken houses and other equipment has been established in the Centre. The trainees attend to the care and maintenance of the birds, preparation and mode of feeding, and of trap-nest records etc.

A veterinary first-aid centre has recently been established. Here the trainees administer medicines and dress the wounds of animals and practice castration. Even though there is no dairy in the Centre, the trainees are taught the preparation of butter, handling of clean milk etc. with the equipment provided in the dairy laboratory.

The trainees use only the Wardha type latrines at the Centre and gain experience in the use of the improved village latrines which they popularize in the villages. The trainees themselves attend to all kinds of sanitation work in the Centre under the guidance of the Public Health Instructor.

The Centre has an excellent museum in which all sections are very well represented by the display of models, specimens, charts, posters etc. The museum is useful in educating the students as also the endless stream of visitors from neighbouring villages.

The trainees learn ginning, carding sliver making, and spinning with *takli*, box *charkha* and *ambar charkha*. Units for village oil production, soap making, paper making and hand pounding are being set up, and the trainees will receive practical training in all these branches also. In the apiary of the Centre the *Gram Sevaks* are trained in the handling of bees, hiving from natural colonies and extraction of honey.

The Gram Sevak trainees working on the Centre's farm

The use of the plant - protection equipment is taught to trainees

The Centre has a registered co-operative store in which the trainees and the staff members are enrolled as members. The activity of the store has not been very intensive due to lack of adequate share-capital. To get over this problem, steps are being taken to secure cash-credit-facilities from the District Central Bank.

Lectures on various subjects by specialists concerned are arranged regularly. Several constructive workers are periodically invited to give instructive talks to the trainees on general topics, like nutrition, hand pounding industry, *gramdan* and *bhoodan* etc.

A small observatory is being set up for giving training to the trainees in the use of meteriological instruments and the importance of meteriological observations to the farmers.

Dramas, folk dances, and music form a regular feature of the activities. The first batch has constructed an open-air theatre in front of the Centre.

The administration of the hostel is done by the trainees themselves. They have an elected *Panchayat*, and the members of the *Panchayat* are assigned specific responsibilities.

The unique feature of this Centre is that the teachers and the taught live on the same campus enabling the staff to participate in all the activities of the trainees besides exercising an effective supervision over their conduct and behaviour.

The Sathivizianagaram Rural Extension Training Centre is sure to play a leading role in the successful implementation of the National Extension Service and Community Development Programmes in the Madras State.

MEENAKSHI WEEDER

— SANJIVA SHETTY

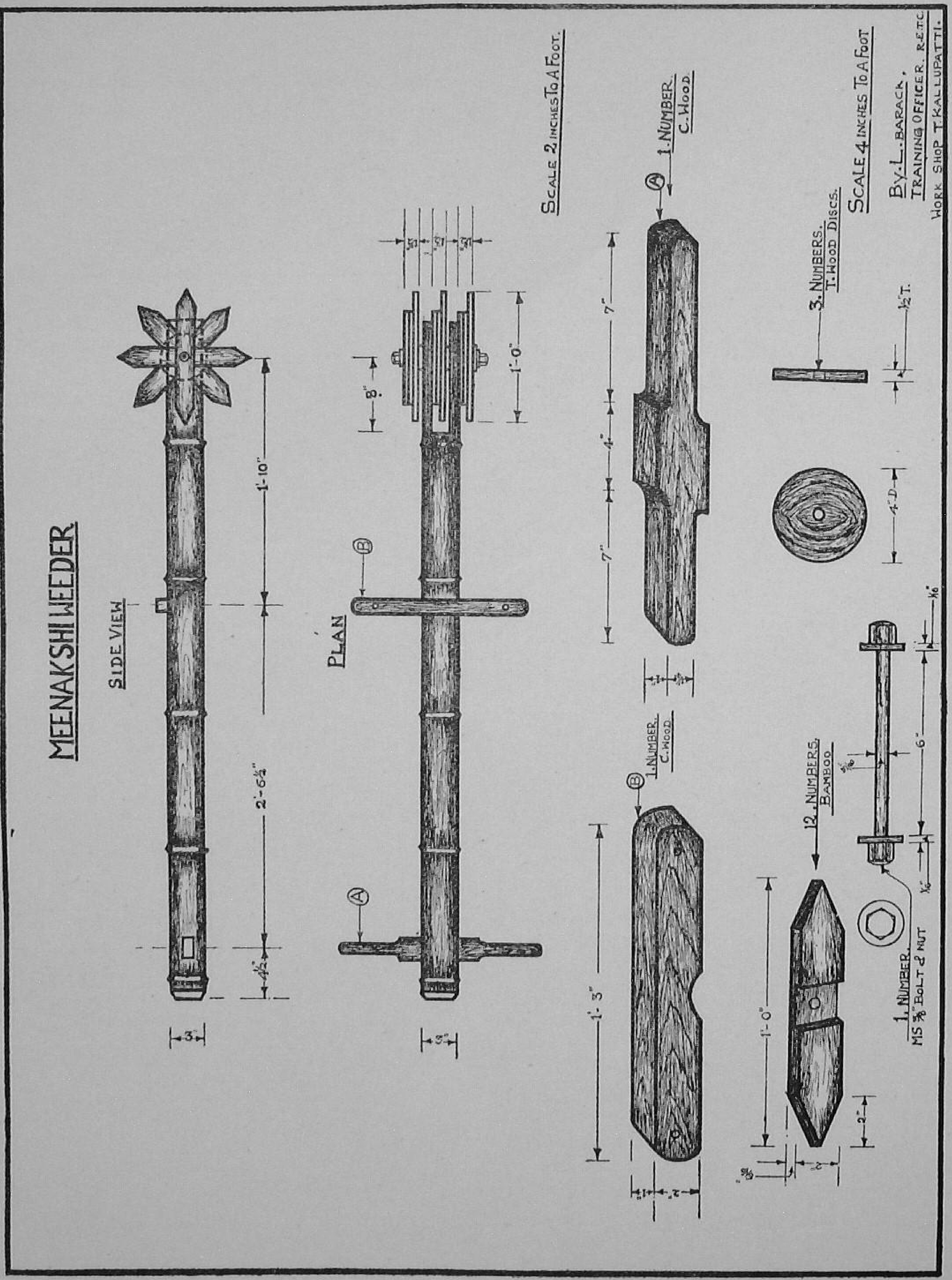
Intercultivation between rows of paddy plants is one of the major operations contributing to the success of the Japanese Method of Paddy Cultivation. The aim of this operation is to destroy weeds, provide enough aeration to the roots of the young paddy crop, so as to stimulate their growth, and to assist in making available the manures and fertilizers.

The Japanese method can make steady and rapid progress, provided we make available to the cultivators an efficient labour-saving implement for interculturing the field at a very low cost. There are many paddy weeders in the market, which are called by different names, such as "P. S. G. Intercultivator", "Jaya Intercultivator", "Japanese Rotavator" and "Wah Wah cultivator", produced by different implement manufacturers.

Farmers, for lack of capital, may not be able to purchase any of these. as they are rather costly.

With a view to overcoming this handicap and making available to the farmers a weeder at a very low cost, the Extension Training Directorate, Agricultural Extension Engineer, Ministry of Food and Agriculture, New Delhi, in co-operation with the Instructors of the Workshop Wing, Rural Extension Training Center II, T. Kallupatti designed a weeder out of bamboo and other raw materials readily available in the rural surroundings, and named it as the "Meenakshi Weeder". Meenakshi is the presiding deity of the Madurai temple.

The weeder has the following advantages, as compared to other types of rotary weeders.


MEENAKSHI WEEDER
SIDE VIEW
PLAN
SCALE 2 INCHES TO A FOOT.
1. NUMBER. C. WOOD.
1. NUMBER. C. WOOD.
12. NUMBERS. BAMBOO
3. NUMBERS. T. WOOD DISCS.
1. NUMBER. MS 3/8" BOLT & NUT
SCALE 4 INCHES TO A FOOT
BY L. BARACK,
TRAINING OFFICER. R.E.T.C
WORK SHOP T. KALLUPATTI.

(1) The weeder is entirely manufactured out of bamboo (except one small M. S. axle) which is easily available in villages.

(2) It is very simple in construction and can be manufactured and repaired by local unskilled artisans.

(3) The working of this implement is simple and its cost is very low. It is wthin the purchasing power of a poor farmer owning some few acres.

CONSTRUCTION DETAILS

The bamboo rotary weeder is a modified form of the Japanese type paddy weeder. The underlying principle of construction adopted in the Japanese Rotavator is embodied in the construction of this weeder. The first two figures show the assembled plan and the side-view of the weeder. The set of drawings show the constructional details and the dimensions of the various components of the weeder. The construction consists of tl e three-star-shaped bamboo rotars, supported on a bolt which is $6\frac{1}{2}''$ long and $\frac{3}{8}''$ in diameter. This bolt serves as the axle for the bamboo rotars. The axle is supported on a bamboo shaft as shown in the sketch. The star-shaped-rotars, three in all, each consisting of four bamboo spikes resembling the spokes of a wheel of dimensions indicated in the figure are assembled over a country-wood disc (see figure for details) and fastened to it by wire-nails. The shaft of the weeder has a handle provided at one end, and a piece of wood is fixed to the shaft at its middle-point to support some convenient load in order to make the weeder penetrate deep into the soil when being used. The cost of this weeder works out to Rs. 2·80 to 3 depending upon the prevailing cost of bamboo.

HOW TO USE THE WEEDER IN THE FIELD

The correct use of this implement is important for efficient interculturing. The weeder is drawn along the rows of paddy-plants by pushing and pulling at each step. The sharp ends of the bamboo spikes of the rotar turn the soil over, uproot the weeds, crush them and effectively bury them. In other words the weeder should be shoved forward by successive short jerks. In very light soils the weeder can be pushed steadily forward. More power is required when the weeder is used in the clayey soils.

About 30 to 40 weeders were supplied to the District Agricultural Officers of the State, who conducted field trials to find out its efficacy and suitability in different tracts of the Madras State. Some District Agricultural Officers have certified the satisfactory performance of this weeder, while a few have stated that it does not rotate freely. This is only a minor defect which can be easily rectified on the sopt by the operator himself. The quality and effectiveness of the work done depend upon the man who uses this implement, and by a few hours of practice the defect can be overcome and the rotation regulated. The District Agricultural Officers of Kozhikode, Cuddalore, Tirunelveli have stated that there is some difficulty in using the weeder under puddled conditions. According to them the teeth, being straight they do not stir the soil properly. But in fact "Meenakshi Weeder", the having pointed teeth, penetrates well in a puddled soil and turns the soil over easily uprooting sma'l weeds, provided adequate water is stangnating in the field. In general, young weeds when small, can be easily uprooted, and perennial weeds and grasses have to be pulled out only by hand. In the light of the observations, extensive field demonstrations were conducted in villages included in the T. Kallupatti Block area by the Agricultural staff of the T. Kallupatti Extension Training Centre with the help of the trainees of the Centre. Experiments were conducted on various fields varying in soil conditions. The defects encountered during such trials were rectified, and the results obtanied were found to be satisfactory.

We are convinced that this implement may prove useful to the poor farmers

owning a few acres of cultivable land and may justify their investment in the purchase of the weeder. We have supplied 15 weeders to the Block Development Officer, Trichy, Madras State, for distribution to the ryots. Also, two weeders were sent to the Principal, Extension Training Centre, Rajendranagar, Hyderabad (Deccan). It is desirable to popularise this implement in villages so as to enable the farmer community to derive the maximum advantage with the minimum of human labour expended with less investment by the use of the weeder.

Women's Corner

GRAM SEVIKAS' SEMINAR AT MANDYA

Home Science Wing

A seminar of *Gram Sevikas* of Mysore State, was organised at the Mandya Home Science Wing by the State Government in the second week of December, 1957.

The object of the seminar was to pool the experience of the *Gram Sevikas*, to find out possible solutions to some of the difficulties faced by them, and to arrive at a working relationship between the *Gram Sevikas* and the other members of the Block team.

The seminar also proved useful in giving the *Gram Sevika* trainees of the Mandya Centre an idea of the working of the *Gram Sevikas* in the field.

The participants of the seminar included *Gram Sevikas*, Lady Social Education Organisers, *Gram Sevika* trainees, Block Development Officers, District Social Education Organisers, Representatives of the Adult Education Council etc.

The summary of the conclusions arrived at by the participants, on various subjects, is given below :—

SUBJECT 1: *How should a Gram Sevika get introduced to a village?*

1. The *Gram Sevika* should be introduced to the people in her assigned villages by the Block staff.
2. In the first few weeks, the Lady Social Education Organiser of the Block should accompany the *Gram Sevika* during her village visits.
3. The *Gram Sevika* should gain confidence of the village people by participating in the work the village women are engaged in at the time of her visit.
4. She should make only three or four home visits during the initial stage of her work on survey.
5. The party feelings in the village, if any, should be diverted by the Block staff towards constructive activities, thereby creating a suitable atomsphere for the *Gram Sevika* to work.

6. A representative of the village women should invariably be included in the Block Advisory Committees.

7. The *Gram Sevika* should teach the village women how to save the consumable articles and prevent wastage.

8. Rousing health consciousness amongst village women through the use of audio-visual aids and other extension methods.

SUBJECT 2: *How far are the BDOs and other Block staff aware of the role of the Gram Sevika?*

What are her activities in which they participate and take interest? What should be the nature of assistance forthcoming from them?

The role of the *Gram Sevika* is being gradually understood by the BDOs, Lady Social Education Organisers, as well as other Block staff, but a fuller understanding is yet to be attained. The main aspects of the work of the *Gram Sevikas* were outlined as follows :

1. Child care.

2. Home management including family budget, kitchen and store arrangement, food and clothing, home decoration and improvement.

3. Supplementing the family income through activities like poultry farming, home crafts, etc.

4. Health and sanitation.

5. Recreation and cultural activities.

The job chart suggested for the *Gram Sevika* is as follows :

SURVEYS
(listed according to priority)

1. Study of the vital statistics of the place.

2. Survey of the food habits of different families in the locality, variety of foods produced and eaten, the types of meals taken and methods of cooking.

3. Survey of trained and untrained *dais* and percentage of women taking the assistance of trained *dais* of the health units.

4. Other subjects if any.

WORK TO BE UNDERTAKEN INDIVIDUALLY

1. Arrangement of the kitchen and store rooms in the village homes.
2. Decorating houses.
3. Providing space for the disposal of household waste.
4. Suggesting simple storage for foods and kitchen utensils.
5. Introducing substitutes for cereals etc.
6. Food preservation.
7. Providing proper ventilation in village houses.
8. Providing space for bathing, and lavatories.
9. Planning of work to save time.
10. Purifying drinking-water at home.
11. Introducing soap-making.
12. Constructing smokeless *choolahs*.

WORK TO BE UNDERTAKEN IN CO-OPERATION WITH GRAM SEVIKAS AND LADY SOCIAL EDUCATION ORGANIZERS

1. Intorducing kitchen gardening.
2. Introducing line-transplanttaion.
3. Providing space for cattle and poul-

try in village homes.

4. Constructing soak-pits and compost-pits.
5. Organizing rural exhibitions.
6. Organizing baby-shows.
7. Organizing competitions amongst women and children in the villages.
8. Conducting parents' day.
9. Opening and organizing children's clubs.
10. Organizing Young Girls' and Women's clubs.

WORK TO BE UNDERTAKEN IN CO-OPERATION WITH OTHER AGENCIES

1. Protection against common household pests.
2. Organizing nursery-schools for children.
3. Literacy classes for women.

SUBJECT 3: *Suggestions regarding*:

(a) *Area or number of villages that could be assigned to a Gram Sevika.*

(b) *The programme which would be helpful in initiating her work.*

(c) *The considerations to be had in view, in starting the work amongst the women.*

The *Gram Sevika* should be assigned five villages within a radius of three to five miles from her headquarters. She should start work in the first five villages (A series) and develop contacts with a similar number of the nearby villages (B series). After a suitable time she should shift the emphasis on intensive work in villages of the B series and develop contact with a fresh set of villages (C series), while maintaining a follow-up contact with the villages of A series. She should live in a village after selecting a suitable one as her Headquarters. She should be provided with a suitable house and other facilities as in the case of other Block staff.

A *Gram Sevika* should normally initiate her programme through organizing activities for the village children. She should try to meet the felt needs of the village women. The cultural activities would also help her in initiating her work. Demonstration programmes in improved diet, somkeless *choolahs*, lice control etc., would be very useful.

In starting the work, the *Gram Sevikas* should consider the economic, social and religious conditions prevailing in the village. The programme for work amongst the women should be based on the available local resources.

SUBJECT 4-*What are the activities in which village women are most interested? What are the programmes that are easily acceptable to them? How can we make other programmes more acceptable?*

The village women are interested mostly in the following activities :—

1. cooking, 2. poultry, 3. mending old garments, 4. *samuhik bhajans*, 5. cultural programmes, 6. simple medicines, 7. kitchen gardening, 8. child welfare.

The programmes that are easily accepted by them are :

1. Cultural programmes.
2. Child-care activities.
3. Compost making.
4. Improvement of cattle-stalls.
5. Kitchen gardening.

Some of the following activities could also be made acceptable to the village women.

1. Methods of food preservation by demonstrations and individual contacts.
2. Smokeless ovens by supply of pipes and other accessories.
3. Change in regular habits like personal cleanliness, daily diet, etc., by organizing campaigns, health days, community work etc.

SUBJECT 5: *What are the financial provisions in the budget of a Community Development Block for work amongst women and for child welfare activities? What is the suggested manner in which these resources could be made best use of?*

The funds available in the Community Development Block for the work of the Lady Social Education Organizer and the *Gram Sevika*, largely depend upon the expenditure incurred during the N. E. S. stage. To ensure sufficient resources for women and for child welfare activities the following suggestions were made :—

1. One fifth of the grants, provided for social education, should be made available for women and for child welfare activities exclusively, since the existing grants are inadequate.

2. The several activities outlined under social education could be made applicable to work among women and children to the extent of one-third of the financial outlay.

It was suggested that the sum allotted for women's organizations could be utilized for the purchase of the demonstration equipment like vessels, sewing kits, first-aid kits, etc. Equipment could also be purchased for the children's and ladies' clubs. Remuneration could also be paid for the teachers appointed for a period of about six months, to begin with, provided the local *panchayat* or people are prepared to take up responsibility later on.

It was agreed that, as far as possible, the permanent activities like laides' classes or nursery-schools should be organized through local institutions like *panchayats*.

SUBJECT 6: *A number of the common difficulties and problems faced by the Gram Sevika in her work. How could they be solved and by whom?*

The common difficulties confronted by a *Gram Sevika* are :

1. Paucity of suitable accommodation.

2. Assisting too many villages.

3. Inconsiderate visiting or night halts.

4. Posting too far away from the home village.

5. Lack of demonstration equipment.

6. Lack of timely supplies and financial assistance.

7. Not being introduced to the villages by the Block staff.

8. Lack of timely guidance.

Some of the suggestions made to overcome the above difficulties were as follows :—

1. Night halts should not be made compulsory. However, the *Gram Sevika* should halt in her assigned village along with the Lady Social Education Organizer or the other Block staff and wherever proper conditions prevail.

2. *Gram Sevikas* should be posted to the Blocks near their home villages.

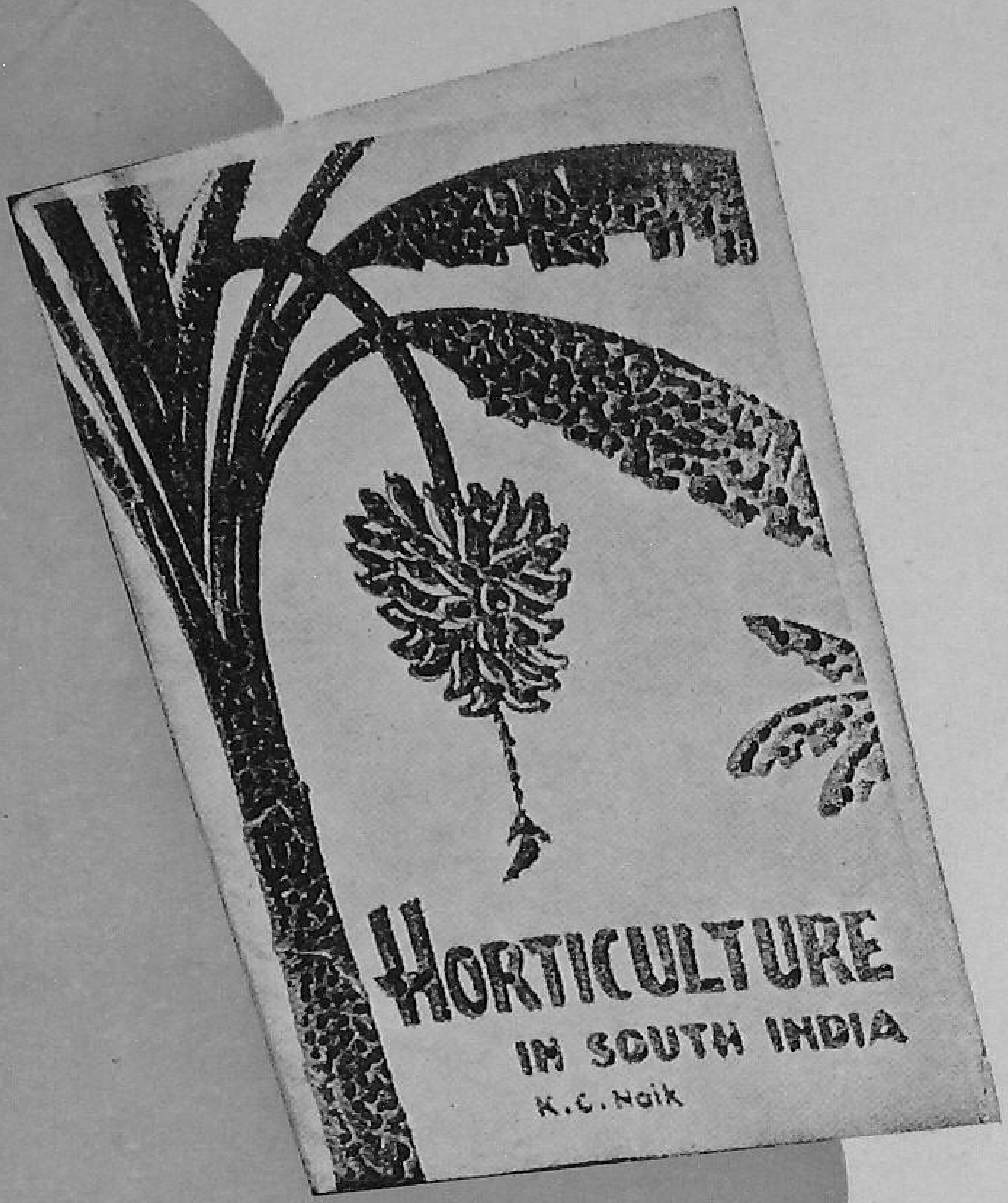
3. The Block staff should assist in finding suitable accommodation for the *Gram Sevika* in her headquarter villages.

4. The Block Development Officer should arrange timely supplies of material.

5. The Lady Social Education Organizer should provide the necessary guidance where essential.

6. The *Gram Sevika* should be given a house-rent allowance, in case a quarter is not provided to her.

EXTENSION TEXT BOOKS



With the object of providing, in a handy form, detailed information on various subjects taught in the training institutions working under its guidance, the Directorate of Extension has taken in hand the publication of a series of textbooks.

Written by well-known authorities, in a simple, non-technical language, and based on the proven results of research these textbooks, it is hoped, will be of interest and benefit not only to the extension trainees and instructors for whom they are primarily intended, but also to the larger circle of agricultural students as well as general readers.

The first of this series of textbooks — "Horticulture in South India" by Dr. K. C. Naik — has now been published. It will be followed by others dealing with Horticulture in the Northern, Eastern and Central Regions of India. "Horticulture in South India" covers the subject in a brief and vivid manner.

For copies and further information please write to :—

DIRECTORATE OF EXTENSION, MINISTRY OF FOOD & AGRICULTURE
(DEPARTMENT OF AGRICULTURE)
KRISHI BHAWAN, NEW DELHI

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